				D	EPARTMENT	T OF NAT	TURAL RES		<b>i</b>			AMENDED		RM 3	
		APPLI	CATION FO	R PERMIT	TO DRILL					1. WELL	NAME and NU	IMBER atern Trust	4-21C4		
2. TYPE OF		RILL NEW WELL (	REENTER	P&A WELL	DEEPEN	I WELL	)			3. FIELD	OR WILDCAT	ALTAMON	IT		
4. TYPE OF V	OI Well Coalbed Methane Well: NO  EPENERGY E&P COMPANY, L.P.  DRESS OF OPERATOR  1001 Louisiana, Houston, TX, 77002  NERAL LEASE NUMBER REAL, INDIAN, OR STATE Fee  Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER (if box 12 = "fee") Walter E.W. Matern Revocable Living Trust  DRESS OF SURFACE OWNER AGREEMENT (if FEE SURFACE)  DIRECTIONAL SURVEY PLAN (if DIRECTIONALLY OR HORIZONTALLY DRILLED)  TITLE Principal Regulatory Analyst  TITLE Principal Regulatory Analyst							5. UNIT	or COMMUNIT	IZATION AC	REEM	ENT NA	ME		
6. NAME OF	OPERATOR									7. OPER	ATOR PHONE	713 997-5	020		
8. ADDRESS	OF OPERATOR									9. OPER	ATOR E-MAIL				
		R	i Louisiana,			SHIP				12. SURI	FACE OWNERS	<u> </u>	energy.	com	
(FEDERAL, I	INDIAN, OR STAT			FEDER	AL NO	DIAN 🔵	STATE	FEE	0	FEDER	RAL NE	DIAN 🔵	STATE	<u> </u>	FEE (III)
13. NAME O	F SURFACE OWI			Revocable Li	ving Trust					14. SUR	FACE OWNER	PHONE (if 80157498		= 'fee')	
15. ADDRES	S OF SURFACE			Drive, Magna	a, UT 84044					16. SUR	FACE OWNER	E-MAIL (if	box 12	= 'fee')	
		RIBE NAME		MULTIPL	E FORMATIO	NS			<b>(</b>	19. SLA		ECTIONAL (	<b>a</b> ) ⊦	IORIZON	TAL 📄
20. LOCAT	ION OF WELL			FOOTAGES		QT	R-QTR	SEC	CTION	тс	WNSHIP	RANG	E	М	ERIDIAN
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Top of Upp	permost Producii	ng Zone	1500	FSL 1400 F	WL	N	IESW	2	21		3.0 S	4.0 V	/		U
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27. ELEVAT	ION - GROUND L	EVEL		28. BONE	NUMBER	210	00				RCE OF DRILL				
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						-									
String		_							Max	Mud Wt.	Class		_	Yield 1.15	Weight 15.8
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NAME Mari	a S. Gomez		ті	TLE Principal	Regulatory A	nalyst				PHONE 713	997-5038				
SIGNATURI	E		D	<b>ATE</b> 02/05/2	014					EMAIL maria	a.gomez@eper	nergy.com			
	er assigned 1352841000	00	AF	PPROVAL				,	Perm	OGG nit Manag	S Seer				

### Matern Trust 4-21C4 Sec. 21, T3S, R4W DUCHESNE COUNTY, UT

### EP ENERGY E&P COMPANY, L.P.

### DRILLING PROGRAM

### 1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV) Green River (GRTN1) Mahogany Bench L. Green River Wasatch T.D. (Permit)	3,929' TVD 4,629' TVD 5,479' TVD 6,779' TVD 8,629' TVD 11,900' TVD / 11,922' MD
\ /	

### 2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>
Oil Oil	Green River (GRRV) Green River (GRTN1) Mahogany Bench L. Green River Wasatch	3,936' MD / 3,929' TVD 4,638' MD / 4,629' TVD 5,491' MD / 5,479' TVD 6,795' MD / 6,779' TVD 8,651' MD / 8,629' TVD

### 3. Pressure Control Equipment: (Schematic Attached)

A 4.5" by 20.0" rotating head on structural pipe from surface to 600' MD/TVD. A 4.5" by 13-3/8" Smith Rotating Head (Diverter System) from 600' MD/TVD to 1,700' MD/TVD on Conductor. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 1,700' MD/TVD to 8,722' MD/ 8,700' TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 8,722' MD/ 8,700' TVD to TD (11,922' MD / 11,900' TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

### **OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:**

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nippled up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing

will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

### **Statement on Accumulator System and Location of Hydraulic Controls:**

Precision Rig # 406 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

### **Auxiliary Equipment**:

- A) Pason Gas Monitoring 600' TD
- B) Mud logger with gas monitor 1,700' to TD
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

### 4. Proposed Casing & Cementing Program:

Please refer to the attached Wellbore Diagram.

All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

### 5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	WBM	8.8 – 9.3
Intermediate	WBM	9.3 – 10.0
Production	WBM	10.0 – 12.0

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

### 6. **Evaluation Program**:

Logs:

Mud Log: 1,700' MD/TVD – TD

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface

casing shoe to TD.

### 7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 11,900' TVD equals approximately 7,426 psi. This is calculated based on a 0.624 psi/ft gradient (12.0 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 4,808 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 8,700' TVD = 6,960 psi

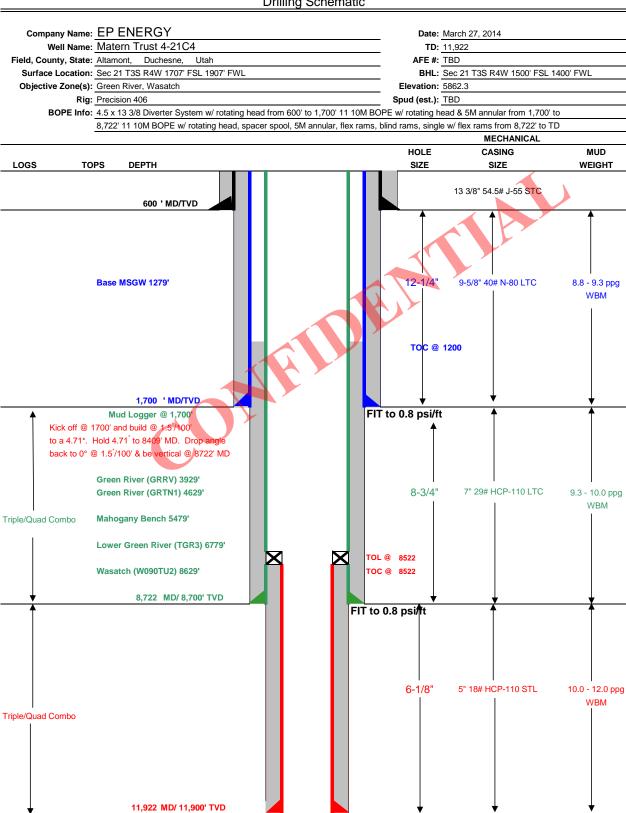
BOPE and casing design will be based on the lesser of the two MASPs which is 4,808 psi.

8. OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.

Page 1/2



### **Drilling Schematic**



Page 2/2

### DRILLING PROGRAM

CASING PROGRAM	SIZE	INTE	RVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	600	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0	1700	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	8722	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	8522	11922	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRA	M	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		600	Class G + 3% CACL2	758	100%	15.8 ppg	1.15
CUREACE	Lead	1,200	EXTENDACEM SYSTEM: 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 2% Bentonite	173	75%	11.0 ppg	3.16
SURFACE	Tail	500	HALCEM SYSTEM: 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.5% HR-5	195	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	5,572	EXTENDACEM SYSTEM: Type G Cement + 10% Bentonite + 0.1% SA-1015 + 0.2% Econolite + 0.2% Halad-322 + 3 Ibm/sk Silicalite Compacted + 1 Ibm/sk Granulite TR 1/4 + 0.125 Ibm/sk Poly-F Flake + 5 Ibm/sk Kol-Seal + 0.8% HR-5	397	10%	12.0 ppg	2.31
	Tail	1,950	EXPANDACEM SYSTEM: Type G Cement + 0.25 lbm/sk Poly-E-Flake + 4% Bentonite + 0.1% Halad-413 + 5 lb/sk Silicalite + 0.15 SA-1015	202	10%	13.0 ppg	1.64
PRODUCTION LINER	RODUCTION LINER		EXTENDACEM SYSTEM: 0.3% Super CBL + 0.1% SA-1015 + 0.3% Halad(R)- 413 + 0.5% SCR-100 + 0.125 lbm/sk Poly- E-Flake + 3 lbm/sk Silicalite Compacted + 20% SSA-1	201	25%	14.20	1.47

FLOAT EQUIPMENT & CENTRALIZERS							
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow						
	spring centralizers on the bottom 3 joints of casing.						
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar & Stage collar. Thread lock all float						
SURFACE	equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.						
INTERMEDIATE	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float						
INTERMEDIATE	equipment. Maker joint at 6,700'.						
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.						

PROJECT ENGINEER(S):	Brad Macafee	713-997-6383	
MANAGER:	Bob Dodd		

## EP ENERGY E&P COMPANY, L.P.

MATERN TRUST 4-21C4 SECTION 21, T3S, R4W, U.S.B.&M.

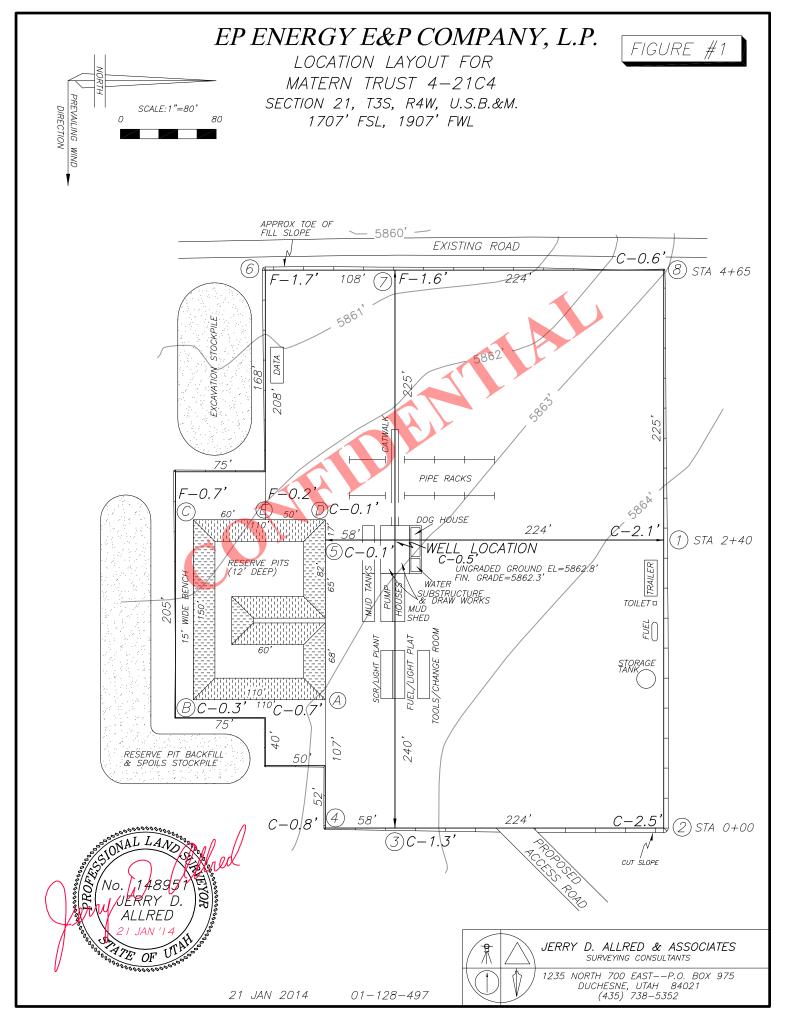
PROCEED NORTH ON STATE ROAD 87 FROM THE INTERSECTION OF STATE ROAD 87 WITH US HIGHWAY 40 IN DUCHESNE, UTAH APPROXIMATELY 3.54 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL EASTERLY ON A COUNTY B ROAD 2.62 MILES TO AN INTERSECTION:

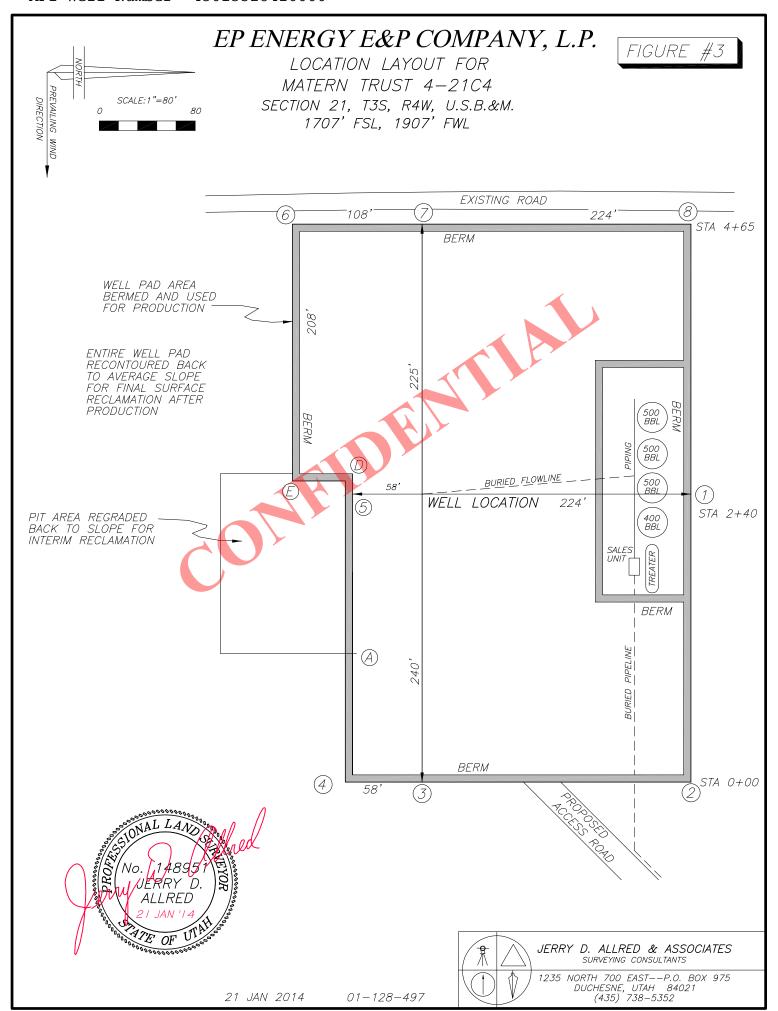
TURN RIGHT AND TRAVEL SOUTHERLY ON AN EXISTING GRAVEL ROAD 0.61 MILES TO THE BIGINNING OF THE ACCESS ROAD;

TURN RIGHT AND FOLLOW ROAD FLAGS WESTERLY 0.10 MILES TO THE PROPOSED LOCATION:

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 6.87 MILES.

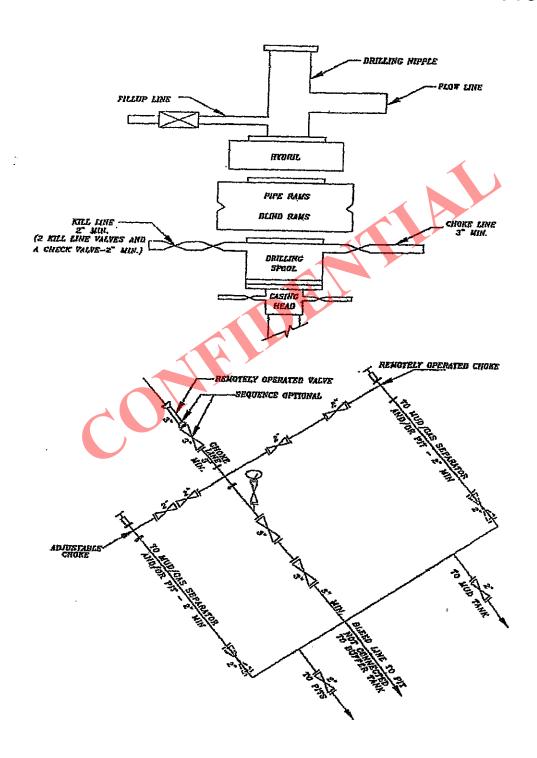


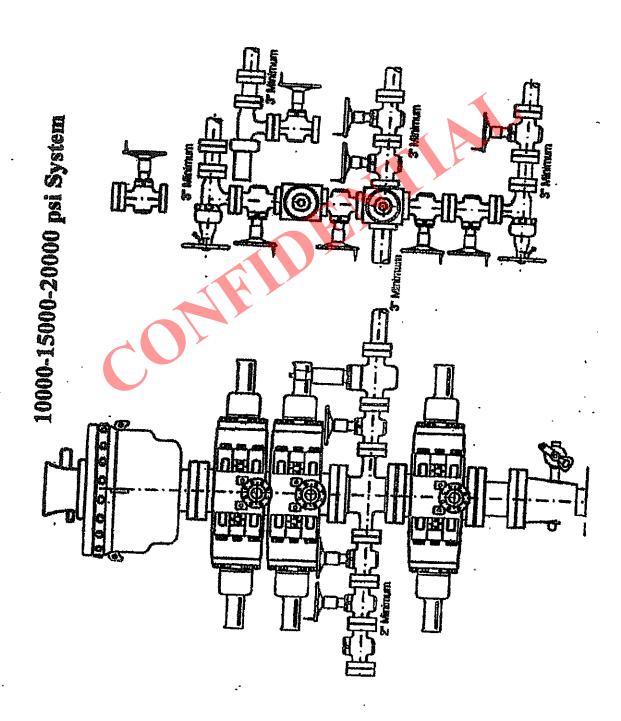
### EP ENERGY E&P COMPANY, L.P. FIGURE #2 LOCATION LAYOUT FOR MATERN TRUST 4-21C4 SECTION 21, T3S, R4W, U.S.B.&M. X-SECTION SCALE 1707' FSL, 1907' FWL 1"=80' NOTE: ALL CUT/FILL SLOPES ARE 1½:1 UNLESS OTHERWISE NOTED 224' 108' LOCATION SURFACE EXISTING GROUND STA 4+65 58' 110' 224 GROUND EXISTING PIT STA 2+57 BENCH 58' 224' 110 EXISTING GROUND LOCATION SURFACE STA 2+40 58' 224' EXISTING GROUND LOCATION SURFACE STA 0+00 APPROXIMATE YARDAGES TOTAL CUT (INCLUDING PIT) = 16,521 CU. YDS. = 4955 CU. YDS. TOPSOIL STRIPPING: (6") = 3160 CU. YDS. UERRY REMAINING LOCATION CUT = 8406 CU. YDS ALLRED TOTAL FILL = 2241 CU. YDS. LOCATION SURFACE GRAVEL=1653 CU. YDS. (4" DEEP) ACCESS ROAD GRAVEL=138 CU. YDS. JERRY D. ALLRED & ASSOCIATES SURVEYING CONSULTANTS 1235 NORTH 700 EAST——P.O. BOX 975 DUCHESNE, UTAH 84021 (435) 738—5352 21 JAN 2014 01 - 128 - 497



975

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM

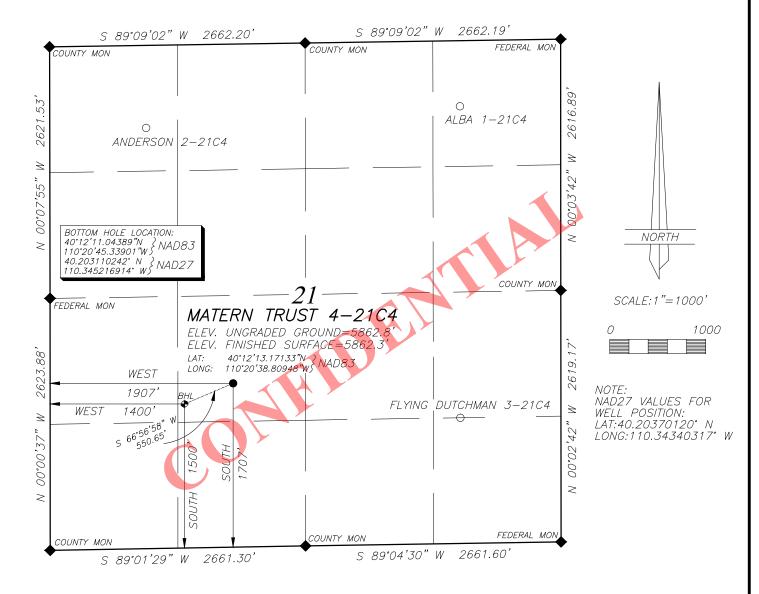




# EP ENERGY E&P COMPANY, L.P.

LOCATED IN THE NE¼ OF THE SW¼ OF SECTION 21, T3S, R4W, U.S.B.&M. DUCHESNE COUNTY, UTAH

WELL LOCATION MATERN TRUST 4-21C4



### LEGEND AND NOTES

CORNER MONUMENTS FOUND AND USED BY THIS SURVEY

> THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

BASIS OF ELEVATIONS: NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK CONTROL SYSTEM

REV 24 JAN 2014 21 JAN 2014

01 - 128 - 497

### SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM THE FIELD NOTES AND ELECTRONIC DATA COLLECTOR FILES OF AN ACTUAL SURVEY PERFORMED BY ME, OR UNDER MY PERSONAL SUPERVISION, DURING WHICH THE SHOWN MONUMENTS WERE FOUND OR REESTABLISHED.

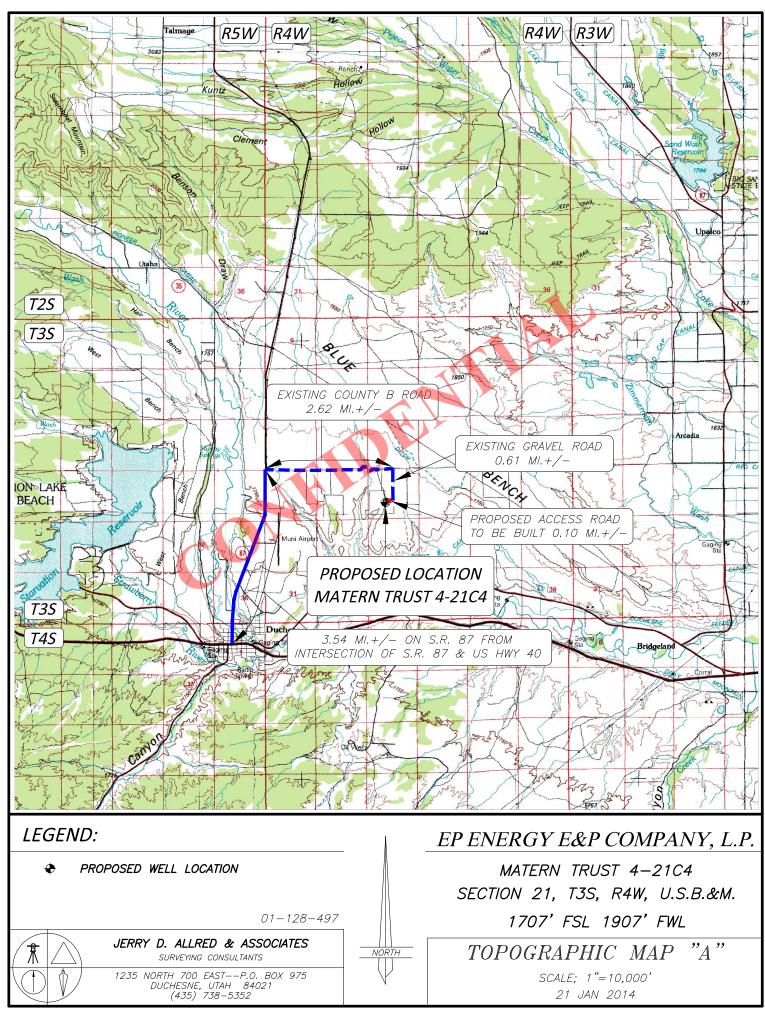


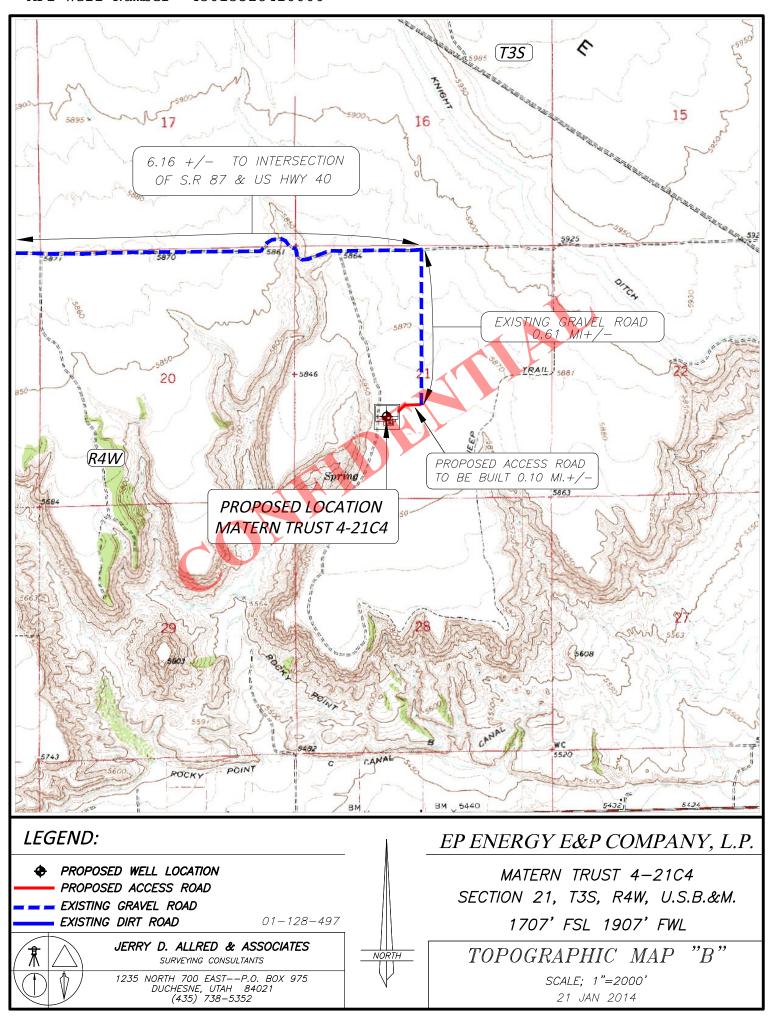
JERRY D. ALLRED, REGISTERED LAND SURVEYOR, CERTIFICATE NO. 148951 (UTAH)

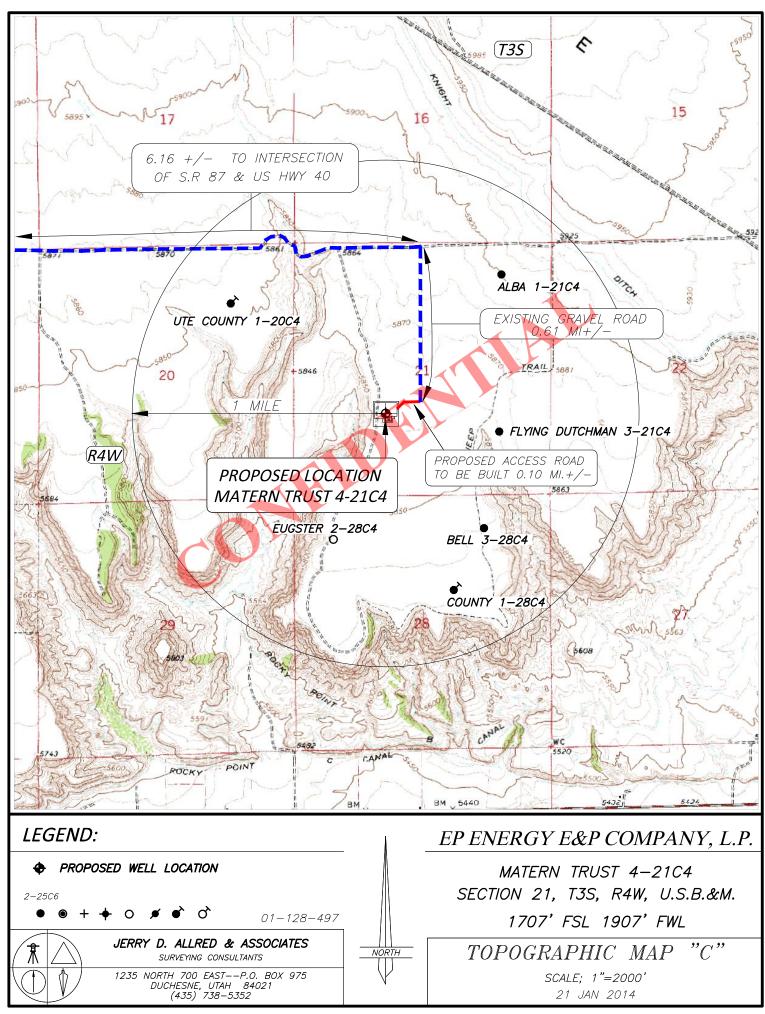


JERRY D. ALLRED & ASSOCIATES SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975 DUCHESNE, UTAH 84021 (435) 738–5352







## AFFIDAVIT OF DAMAGE SETTLEMENT AND RELEASE

Jacquelyn L. Lynch personally appeared before me, and, being duly sworn, deposes and says:

- 1. My name is Jacquelyn L. Lynch. I am a Landman for EP Energy E&P Company, L.P., whose address is 1001 Louisiana St., Houston, Texas 77002 ("EP Energy").
- 2. EP Energy is the operator of the proposed Matern Trust 4-21C4 well (the "Well") to be located in the NESW of Section 21, Township 3 South, Range 4 West, USM, Duchesne County, Utah (the "Drillsite Location"). The surface owner of the Drillsite Location is The Walter E.W. Matern Revocable Living Trust, dated 02/24/2003 whose address is 8066 Pleasant Green Drive, Magna, UT 84044 (the "Surface Owner"). The Surface Owner is represented by Bruce Walter Matern & Helen Matern Jelitto, Successor Co-Trustees who can be contacted at (801) 574-9875.
- 3. EP Energy and the Surface Owner have entered into a Damage Settlement and Release Agreement dated November 26, 2013, to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of operations associated with the drilling of the Well.

FURTHER AFFIANT SAYETH NOT.

V

**ACKNOWLEDGMENT** 

STATE OF TEXAS

8 8

**COUNTY OF HARRIS** 

Sworn to and subscribed before me on this 22nd day of January, 2014, by Jacquelyn L.

Lynch, as Landman for EP Energy E&P Company, L.P., a Delaware limited partnership.

My Commission Expires:



API Well Number: 43013528410000 Application for Permit to Drill – State DOGM Matern Trust 4-21C4 Duchesne County, Utah

### EP Energy E&P Company, L.P.

### **Related Surface Information**

### 1. <u>Current Surface Use:</u>

Livestock Grazing and Oil and Gas Production.

### 2. Proposed Surface Disturbance:

- The road will be crown and ditch. Water wings will be constructed on the access road as needed.
- The topsoil will be windrowed and re-spread in the borrow area.
- New road to be constructed will be approximately .10 miles in length and 66 feet wide.
- All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

### 3. Location Of Existing Wells:

Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.

### 4. <u>Location And Type Of Drilling Water Supply:</u>

• Drilling water: Duchesne City Water

### 5. Existing/Proposed Facilities For Productive Well:

- There are no existing facilities that will be utilized for this well.
- A pipeline corridor .10 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line
  and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed
  areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill
  slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
- Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

### 6. Construction Materials:

 Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

### 7. Methods For Handling Waste Disposal:

- The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be place in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
- Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
- Sewage will be handled in Portable Toilets.
- Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any
  hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a
  later date.
- Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's

### 8. Ancillary Facilities:

There will be no ancillary facilities associated with this project.

Application for Permit to Drill – State DOGM Matern Trust 4-21C4 Duchesne County, Utah

#### 9. **Surface Reclamation Plans:**

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15<sup>th</sup>, and prior to ground frost, or seed will be planted after the frost has left and before May 15<sup>th</sup>. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
  - 1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
  - 2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
  - 3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.
- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.
  - 1. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
  - Landowner will be contacted for rehabilitation requirements.

#### 10. **Surface Ownership:**

The Walter E.W. Matern Revocable Living Trust 8066 Pleasant Green Drive Magna, Utah 84044 801-574-9875

### Other Information:

- The surface soil consists of clay, and silt.
- Flora vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface uses Livestock grazing and mineral exploration and production.

### **Operator and Contact Persons:**

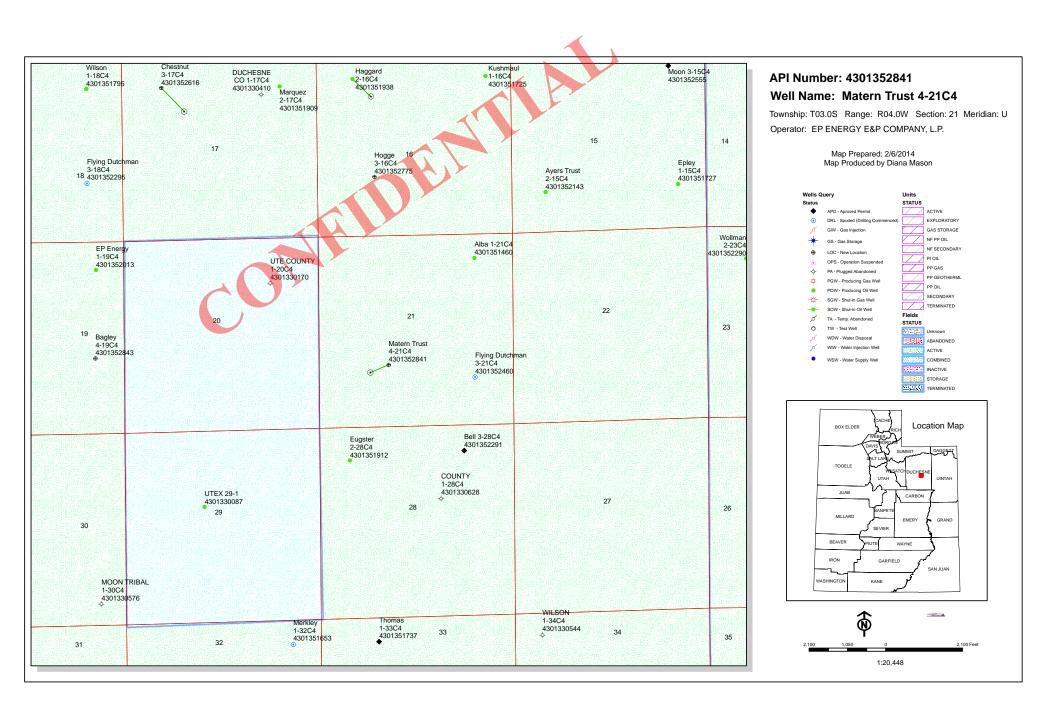
**Construction and Reclamation:** EP Energy E&P Company, L.P. **Wayne Garner PO Box 410** Altamont, Utah 84001 435-454-3394 - Office

435-823-1490 - Cell

Drilling

EP Energy E&P Company, L.P. **Brad MacAfee – Drilling Engineer** 1001 Louisiana, Rm 2660D Houston, Texas 77002 713-997-6383 - office 281-813-0902 - Cell

**Regarding This APD** EP Energy E&P Company, L.P. Maria S. Gomez 1001 Louisiana, Rm 2730D Houston, Texas 77002 713-997-5038 - Office





# **EP ENERGY**

DUCHESNE COUNTY, UT FLYING DUTCHMAN/MATERN TRUST MATERN TRUST 4-21C4

**MATERN TRUST 4-21C4** 

Plan: Design #1

**PROPOSAL** 

04 February, 2014



# **EP ENERGY**

**DESIGN TARGET DETAILS** 

TVD +N/-S +E/-W Lonaitude Latitude VP MATERN TRUST 4-21C4 PBHL MATERN TRUST 4-21C4 40° 12' 11.044 N 110° 20' 45.339 W 40° 12' 11.044 N 110° 20' 45.339 W 8700.00 -215.25 -215.25 -506.60 -506.60 11900.00

WELL DETAILS: MATERN TRUST 4-21C4

5862 00 Ground Level: +N/-S +E/-W Northing 7244994.38 Easting 1963254.14 Latittude 0.00 0.00

Longitude 110° 20' 38.809 W

40° 12' 13.171 N

SECTION DETAILS

Inc Azi +E/-W Dleg 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1700.00 0.00 0.00 0.00 0.00 0.00 1700.00 2013.75 4.71 246.98 2013.40 -5.04 -11.85 1.50 246.98 12.88 537.55 550.43 8408.51 4.71 246.98 8386.60 -210.21 -494.75 0.00 0.00 8722.27 0.00 0.00 8700.00 -215.25 -506.60 1.50 180.00 0.0011900.00 -215.25 0.00 0.00 550.43

Start Build 1.50 Start 6394.75 hold at 2013.76 MD Start Drop -1.50 Start 3200.00 hold at 8722.27 MD

Slot

Annotation

TD at 11922.27

### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well MATERN TRUST 4-21C4, True North Vertical (TVD) Reference: WELL @ 5879.00ft (Original Well Elev) Section (VS) Reference: Slot - (0.00N, 0.00E) Measured Depth Reference: WELL @ 5879.00ft (Original Well Elev) Calculation Method: Minimum Curvature

#### FORMATION TOP DETAILS

Formation	MDPath	TVDPath
Green River (GRRV)	3935.83	3929.00
Green River (GRTN1)	4638.20	4629.00
Green River (GRTN1)	5491.08	5479.00
Lower Green River (TGR3)	6795.47	6779.00
Wasatch (W090TU2)	8651.26	8629.00

Azimuths to True North Magnetic North: 11.20° Magnetic Field

Strength: 51959.4snT Dip Angle: 65.79° Date: 2/4/2014 Model: BGGM2013

PROJECT DETAILS: DUCHESNE COUNTY, UT

Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Utah Central Zone System Datum: Mean Sea Level

CASING DETAILS

TVD MD 1700.00 Name 9 5/8" 7" 5" 9-5/8 7 5 1700.00 8700.00 8722.27 11900.00 11922.27

Project: DUCHESNE COUNTY, UT Site: FLYING DUTCHMAN/MATERN TRUST

Well: MATERN TRUST 4-21C4

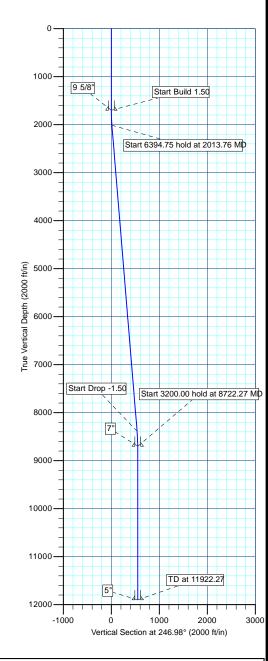
Wellbore: MATERN TRUST 4-21C4

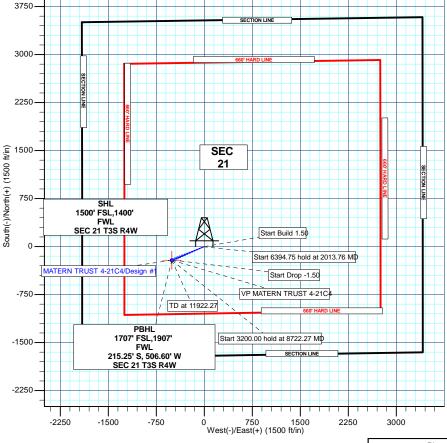
Design: Design #1 Latitude: 40° 12' 13.171 N Longitude: 110° 20' 38.809 W

GL: 5862.00

KB: WELL @ 5879.00ft (Original Well Elev)







Plan: Design #1 (MATERN TRUST 4-21C4/MATERN TRUST 4-21C4) Created By: THOMAS JANOUSEK Date: 11:00, February 04 2014



# **EP ENERGY**

DUCHESNE COUNTY, UT FLYING DUTCHMAN/MATERN TRUST MATERN TRUST 4-21C4

**MATERN TRUST 4-21C4** 

Plan: Design #1

Standard Planning Report

04 February, 2014





### Weatherford

### Planning Report



**Weatherford** 

EDM 5000.1 Single User Db Database:

Company: **EP ENERGY** 

Project: DUCHESNE COUNTY, UT FLYING DUTCHMAN/MATERN TRUST Site:

Well: MATERN TRUST 4-21C4 Wellbore: MATERN TRUST 4-21C4

Design #1 Design:

**Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well MATERN TRUST 4-21C4

WELL @ 5879.00ft (Original Well Elev) WELL @ 5879.00ft (Original Well Elev)

Minimum Curvature

Project DUCHESNE COUNTY, UT

Map System: Geo Datum:

US State Plane 1983 North American Datum 1983

Utah Central Zone Map Zone:

System Datum:

Mean Sea Level

FLYING DUTCHMAN/MATERN TRUST Site

Northing: 7,244,663.51 usft Site Position: Latitude: From: Lat/Long Easting: 1,965,623.99 usft Longitude: **Position Uncertainty:** 0.00 ft Slot Radius: 13-3/16" Grid Convergence:

110° 20' 8.322 W 0.75 °

40° 12' 9.598 N

Well MATERN TRUST 4-21C4

+N/-S 7,244,994.38 usft **Well Position** 361.69 ft Northing: Latitude: 40° 12' 13.171 N +E/-W -2,365.35 ft Easting: 1,963,254.14 usft Longitude: 110° 20' 38.809 W

**Position Uncertainty** 0.00 ft Wellhead Elevation: ft Ground Level: 5,862.00 ft

MATERN TRUST 4-21C4 Wellbore Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) 2/4/2014 BGGM2013 11.20 65.79 51,959

Design Design #1 Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 Depth From (TVD) **Vertical Section:** +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 246.98

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,013.75	4.71	246.98	2,013.40	-5.04	-11.85	1.50	1.50	0.00	246.98	
8,408.51	4.71	246.98	8,386.60	-210.21	-494.75	0.00	0.00	0.00	0.00	
8,722.27	0.00	0.00	8,700.00	-215.25	-506.60	1.50	-1.50	0.00	180.00	VP MATERN TRUST
11,922.27	0.00	0.00	11,900.00	-215.25	-506.60	0.00	0.00	0.00	0.00	PBHL MATERN TRU



# Weatherford

### Planning Report



**Weatherford**<sup>®</sup>

Database: EDM 5000.1 Single User Db

Company: EP ENERGY

Project: DUCHESNE COUNTY, UT
Site: FLYING DUTCHMAN/MATERN TRUST

Well: MATERN TRUST 4-21C4
Wellbore: MATERN TRUST 4-21C4

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well MATERN TRUST 4-21C4 WELL @ 5879.00ft (Original Well Elev) WELL @ 5879.00ft (Original Well Elev)

Γrue

esign:	Design #1								
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				, ,			,	, ,	, ,
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00		700.00			0.00	0.00	0.00	
		0.00		0.00	0.00				0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
					0.00				
1,300.00	0.00	0.00	1,300.00	0.00		0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1			.,						
	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00					0.00				
1,800.00	1.50	246.98	1,799.99	-0.51	-1.20	1.31	1.50	1.50	0.00
1,900.00	3.00	246.98	1,899.91	-2.05	-4.82	5.23	1.50	1.50	0.00
2,000.00	4.50	246.98	1,999.69	-4.60	-10.84	11.77	1.50	1.50	0.00
2,013.75	4.71	246.98	2,013.40	-5.04	-11.85	12.88	1.50	1.50	0.00
	5 hold at 2013.76		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
2,013.76	4.71	246.98	2,013.41	-5.04	-11.85	12.88	0.00	0.00	0.00
2,100.00	4.71	246.98	2,099.36	-7.80	-11.03	19.95	0.00	0.00	0.00
2,200.00	4.71	246.98	2,199.02	-11.01	-25.92	28.16	0.00	0.00	0.00
2,200.00	4.71	240.90	2,199.02	-11.01	-25.92	20.10	0.00	0.00	0.00
2,300.00	4.71	246.98	2,298.68	-14.22	-33.47	36.36	0.00	0.00	0.00
2,400.00	4.71	246.98	2,398.35	-17.43	-41.02	44.57	0.00	0.00	0.00
2,500.00	4.71	246.98	2,498.01	-20.64	-48.57	52.77	0.00	0.00	0.00
2,600.00	4.71	246.98	2,597.67	-23.85	-56.12	60.98	0.00	0.00	0.00
2,700.00	4.71	246.98	2,697.33	-27.05	-63.67	69.18	0.00	0.00	0.00
0.000.00		0.40.00	0.707.00	20.00	74.00	== 00	0.00	0.00	0.00
2,800.00	4.71	246.98	2,797.00	-30.26	-71.23	77.39	0.00	0.00	0.00
2,900.00	4.71	246.98	2,896.66	-33.47	-78.78	85.59	0.00	0.00	0.00
3,000.00	4.71	246.98	2,996.32	-36.68	-86.33	93.80	0.00	0.00	0.00
3,100.00	4.71	246.98	3,095.98	-39.89	-93.88	102.00	0.00	0.00	0.00
3,200.00	4.71	246.98	3,195.65	-43.10	-101.43	110.21	0.00	0.00	0.00
3,300.00	4.71	246.98	3,295.31	-46.31	-108.98	118.41	0.00	0.00	0.00
3,400.00	4.71	246.98	3,394.97	-49.51	-116.53	126.62	0.00	0.00	0.00
3,500.00	4.71	246.98	3,494.64	-52.72	-110.55	134.82	0.00	0.00	0.00
3,600.00		246.98	3,594.30			134.02			
	4.71			-55.93 50.14	-131.64		0.00	0.00	0.00
3,700.00	4.71	246.98	3,693.96	-59.14	-139.19	151.23	0.00	0.00	0.00
3,800.00	4.71	246.98	3,793.62	-62.35	-146.74	159.44	0.00	0.00	0.00
3,900.00	4.71	246.98	3,893.29	-65.56	-154.29	167.64	0.00	0.00	0.00
Green River									
3,935.83	4.71	246.98	3,929.00	-66.71	-157.00	170.58	0.00	0.00	0.00
4,000.00	4.71	246.98	3,992.95	-68.77	-161.84	175.85	0.00	0.00	0.00
4,100.00	4.71	246.98	4,092.61	-71.97	-161.64	184.05	0.00	0.00	0.00
4,100.00	4.71	240.90	4,092.01	-11.91	- 109.39	104.00	0.00	0.00	0.00
4,200.00	4.71	246.98	4,192.28	-75.18	-176.95	192.26	0.00	0.00	0.00
4,300.00	4.71	246.98	4,291.94	-78.39	-184.50	200.46	0.00	0.00	0.00
4,400.00	4.71	246.98	4,391.60	-81.60	-192.05	208.66	0.00	0.00	0.00
4,500.00	4.71	246.98	4,491.26	-84.81	-199.60	216.87	0.00	0.00	0.00
4,600.00	4.71	246.98	4,590.93	-88.02	-207.15	225.07	0.00	0.00	0.00
7,000.00	7.71	240.00	1,000.00	00.02	201.10	0.01	0.00	0.00	0.00



## Weatherford

Planning Report



Database:

Company:

Project:

Site:

EDM 5000.1 Single User Db

EP ENERGY

DUCHESNE COUNTY, UT

FLYING DUTCHMAN/MATERN TRUST

Well: MATERN TRUST 4-21C4
Wellbore: MATERN TRUST 4-21C4

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MATERN TRUST 4-21C4 WELL @ 5879.00ft (Original Well Elev) WELL @ 5879.00ft (Original Well Elev)

True

sign:	Design #1								
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Green Riv	er (GRTN1)								
4,638.20	4.71	246.98	4,629.00	-89.24	-210.04	228.21	0.00	0.00	0.00
4,700.00	4.71	246.98	4,690.59	-91.23	-214.70	233.28	0.00	0.00	0.00
4,800.00		246.98	4,790.25	-94.43	-222.25	241.48	0.00	0.00	0.00
4,900.00		246.98	4,889.92	-97.64	-229.80	249.69	0.00	0.00	0.00
5,000.00		246.98	4,989.58	-100.85	-237.36	257.89	0.00	0.00	0.00
5,100.00		246.98	5,089.24	-104.06	-244.91	266.10	0.00	0.00	0.00
5,200.00		246.98	5,188.90	-107.27	-252.46	274.30	0.00	0.00	0.00
5,300.00		246.98	5,288.57	-110.48	-260.01	282.51	0.00	0.00	0.00
5,400.00	4.71	246.98	5,388.23	-113.68	-267.56	290.71	0.00	0.00	0.00
Green Rive	er (GRTN1)								
5,491.08	3 4.71	246.98	5,479.00	-116.61	-274.44	298.18	0.00	0.00	0.00
5,500.00	) 4.71	246.98	5,487.89	-116.89	-275.11	298.92	0.00	0.00	0.00
5,600.00		246.98	5,587.56	-120.10	-282.66	307.12	0.00	0.00	0.00
5,700.00		246.98	5.687.22	-123.31	-290.22	315.33	0.00	0.00	0.00
5,800.00		246.98	5,786.88	-126.52	-297.77	323.53	0.00	0.00	0.00
5,900.00		246.98	5,886.54	-120.52	-305.32	323.53	0.00	0.00	0.00
6,000.00		246.98	5,986.21	-132.94	-312.87	339.94	0.00	0.00	0.00
6,100.00	4.71	246.98	6,085.87	-136.14	-320.42	348.15	0.00	0.00	0.00
6,200.00	4.71	246.98	6,185.53	-139.35	-327.97	356.35	0.00	0.00	0.00
6,300.00	4.71	246.98	6,285.20	-142.56	-335.52	364.56	0.00	0.00	0.00
6,400.00	4.71	246.98	6,384.86	-145.77	-343.08	372.76	0.00	0.00	0.00
6,500.00	4.71	246.98	6,484.52	-148.98	-350.63	380.96	0.00	0.00	0.00
6,600.00		246.98	6,584.18	-152.19	-358.18	389.17	0.00	0.00	0.00
6,700.00		246.98	6,683.85	-155.40	-365.73	397.37	0.00	0.00	0.00
	en River (TGR3)	10.00	0,000.00	100.10	000.70	007.07	0.00	0.00	0.00
6,795.47	, ,	246.98	6,779.00	-158.46	-372.94	405.21	0.00	0.00	0.00
6,800.00		246.98	6,783.51	-158.60	-373.28	405.58	0.00	0.00	0.00
6,900.00		246.98	6,883.17	-161.81	-380.83	413.78	0.00	0.00	0.00
7,000.00	4.71	246.98	6,982.84	-165.02	-388.38	421.99	0.00	0.00	0.00
7,100.00	4.71	246.98	7,082.50	-168.23	-395.94	430.19	0.00	0.00	0.00
7,200.00	4.71	246.98	7,182.16	-171.44	-403.49	438.40	0.00	0.00	0.00
7,300.00	4.71	246.98	7,281.82	-174.65	-411.04	446.60	0.00	0.00	0.00
7,400.00	) 4.71	246.98	7,381.49	-177.86	-418.59	454.81	0.00	0.00	0.00
7,500.00		246.98	7,481.15	-181.06	-426.14	463.01	0.00	0.00	0.00
7,600.00		246.98	7,580.81	-184.27	-420.14	471.22	0.00	0.00	0.00
7,700.00		246.98	7,680.48	-187.48	-441.24	471.22	0.00	0.00	0.00
7,700.00		246.98	7,780.14	-190.69	-441.24	487.63	0.00	0.00	0.00
7,900.00		246.98	7,879.80	-193.90	-456.35	495.83	0.00	0.00	0.00
8,000.00		246.98	7,979.46	-197.11	-463.90	504.04	0.00	0.00	0.00
8,100.00		246.98	8,079.13	-200.32	-471.45	512.24	0.00	0.00	0.00
8,200.00		246.98	8,178.79	-203.52	-479.00	520.45	0.00	0.00	0.00
8,300.00	4.71	246.98	8,278.45	-206.73	-486.55	528.65	0.00	0.00	0.00
Start Drop	-1.50								
8,408.51		246.98	8,386.59	-210.21	-494.75	537.55	0.00	0.00	0.00
8,408.51		246.98	8,386.60	-210.21	-494.75	537.55	0.00	0.00	0.00
8,500.00		246.98	8,477.86	-212.72	-500.65	543.97	1.50	-1.50	0.00
8,600.00		246.98	8,577.75	-214.48	-504.80	548.48	1.50	-1.50	0.00
Wasatch (			- ,						
8,651.26	,	246.98	8,629.00	-214.99	-505.99	549.77	1.50	-1.50	0.00
,									
8,700.00		246.98	8,677.73	-215.22	-506.54	550.37	1.50	-1.50	0.00
	.00 hold at 8722.27	7 MD - 7"							
8,722.27	0.00	0.00	8,700.00	-215.25	-506.60	550.43	1.50	-1.50	0.00



# Weatherford

Planning Report



**Weatherford** 

Database: EDM 5000.1 Single User Db

Company: EP ENERGY

Project: DUCHESNE COUNTY, UT
Site: FLYING DUTCHMAN/MATERN TRUST

Well: MATERN TRUST 4-21C4
Wellbore: MATERN TRUST 4-21C4

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well MATERN TRUST 4-21C4 WELL @ 5879.00ft (Original Well Elev) WELL @ 5879.00ft (Original Well Elev)

True

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,800.00	0.00	0.00	8,777.73	-215.25	-506.60	550.43	0.00	0.00	0.00
8,900.00	0.00	0.00	8,877.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,000.00	0.00	0.00	8,977.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,100.00	0.00	0.00	9,077.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,200.00	0.00	0.00	9,177.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,300.00	0.00	0.00	9,277.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,400.00	0.00	0.00	9,377.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,500.00	0.00	0.00	9,477.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,600.00	0.00	0.00	9,577.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,700.00	0.00	0.00	9,677.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,800.00	0.00	0.00	9,777.73	-215.25	-506.60	550.43	0.00	0.00	0.00
9,900.00	0.00	0.00	9,877.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,000.00	0.00	0.00	9,977.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,100.00	0.00	0.00	10,077.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,200.00	0.00	0.00	10,177.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,300.00	0.00	0.00	10,277.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,400.00	0.00	0.00	10,377.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,500.00	0.00	0.00	10,477.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,600.00	0.00	0.00	10,577.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,700.00	0.00	0.00	10,677.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,800.00	0.00	0.00	10,777.73	-215.25	-506.60	550.43	0.00	0.00	0.00
10,900.00	0.00	0.00	10,877.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,000.00	0.00	0.00	10,977.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,100.00	0.00	0.00	11,077.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,200.00	0.00	0.00	11,177.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,300.00	0.00	0.00	11,277.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,400.00	0.00	0.00	11,377.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,500.00	0.00	0.00	11,477.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,600.00	0.00	0.00	11,577.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,700.00	0.00	0.00	11,677.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,800.00	0.00	0.00	11,777.73	-215.25	-506.60	550.43	0.00	0.00	0.00
11,900.00	0.00	0.00	11,877.73	-215.25	-506.60	550.43	0.00	0.00	0.00
TD at 11922.2									
11,922.27	0.00	0.00	11,900.00	-215.25	-506.60	550.43	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP MATERN TRUST 4-2 - plan hits target cen - Point	0.00 ter	0.00	8,700.00	-215.25	-506.60	7,244,772.61	1,962,750.36	40° 12' 11.044 N	110° 20' 45.339 W
PBHL MATERN TRUST - plan hits target cen - Point	0.00 ter	0.00	11,900.00	-215.25	-506.60	7,244,772.61	1,962,750.36	40° 12' 11.044 N	110° 20' 45.339 W



### Weatherford

### Planning Report



**Weatherford**<sup>®</sup>

Database: EDM 5000.1 Single User Db

Company: EP ENERGY

Project: DUCHESNE COUNTY, UT
Site: FLYING DUTCHMAN/MATERN TRUST

Well: MATERN TRUST 4-21C4
Wellbore: MATERN TRUST 4-21C4

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MATERN TRUST 4-21C4

WELL @ 5879.00ft (Original Well Elev) WELL @ 5879.00ft (Original Well Elev)

True

Casing Points						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
	11,922.27	11,900.00	5"	5	6-1/8	
	8,722.27	8,700.00	7"	7	8-3/4	
	1,700.00	1,700.00	9 5/8"	9-5/8	12-1/4	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	3,935.83	3,929.00	Green River (GRRV)		0.00	
	4,638.20	4,629.00	Green River (GRTN1)		0.00	
	5,491.08	5,479.00	Green River (GRTN1)		0.00	
	6,795.47	6,779.00	Lower Green River (TGR3)	$\lambda \lambda \lambda$	0.00	
	8,651.26	8,629.00	Wasatch (W090TU2)		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordin +N/-S (ft)	nates +E/-W (ft)	Comment
1,700.0 2,013.7 8,408.5 8,722.2 11,922.2	6 2,013.76 1 8,408.51 7 8,722.27	0.00 0.00 0.01 0.00 -209.99	0.00 0.00 0.00 -0.02 -494.22	Start Build 1.50 Start 6394.75 hold at 2013.76 MD Start Drop -1.50 Start 3200.00 hold at 8722.27 MD TD at 11922.27

Required Casing/BOPE Test Pressure=

\*Max Pressure Allowed @ Previous Casing Shoe=

#### **BOPE REVIEW** EP ENERGY E&P COMPANY, L.P. Matern Trust 4-21C4 43013528410000

Well Name		EP ENERGY E&	P COMPANY, L.F	P. Matern Trust	l-210	24 4301352841	oo	
String		COND	SURF	11	7	L1	= 	
Casing Size(")		13.375	9.625	7.000	ī	5.000		
Setting Depth (TVD)		600	1700	8722	7	11900	i	
Previous Shoe Setting Dept	h (TVD)	0	600	1700	ī	8722		
Max Mud Weight (ppg)		8.8	9.3	10.0	i	12.0	i	
BOPE Proposed (psi)		1000	1000	10000	ī	10000		
Casing Internal Yield (psi)		2730	5750	11220	i	13940	i	
Operators Max Anticipated	Pressure (psi)	7426				12.0		
Calculations		COND Str	ring		Т	13.375	"	
Max BHP (psi)		.0	)52*Setting	Depth*MW	-   [	275		
					1		BOPE A	dequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Set	ting Depth)	1	203	YES	4.5 x 20 rotating head
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Set	ting Depth)	= [	143	YES	OK
							*Can Fu	all Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous S	hoe Depth)	<u> </u>	143	NO	OK
Required Casing/BOPE Te	st Pressure=					600	psi	
*Max Pressure Allowed @	Previous Casing S	Shoe=				0	psi *A	Assumes 1psi/ft frac gradient
Calculations		SURF Str	·ino		7	9,625	"	
Max BHP (psi)			)52*Setting	Depth*MW		822		
***				4 7	P	022	BOPE A	dequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Мах ВН	P-(0.12*Set	ting Depth)	=   [	618	YES	4.5 x 13 3/8 rotating head
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Set	ting Depth)	=	448	YES	Ok
		1			ľ		*Can Fu	all Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous S	hoe Depth)	= [	580	YES	ОК
Required Casing/BOPE Te	st Pressure=				Ţ.	1700	psi	
*Max Pressure Allowed @	Previous Casing S	Shoe=			[	600	psi *A	Assumes 1psi/ft frac gradient
Calculations		I1 Strin	ng		Т	7.000	"	
Max BHP (psi)		.0	)52*Setting	Depth*MW	1	4535		
					1		BOPE A	dequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Set	ting Depth)	= [	3488	YES	10M BOPE w/rotating head, 5M annular, blind rams, flex ram
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Set	ting Depth)	- [	2616	YES	OK
							*Can Fu	all Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous S	hoe Depth)	= <u>  [</u>	2990	NO	OK
Required Casing/BOPE Te	st Pressure=				[]	7854	psi	
*Max Pressure Allowed @	Previous Casing	Shoe=				1700	psi *A	Assumes 1psi/ft frac gradient
Calculations		L1 Strii	ng		Т	5.000	"	
Max BHP (psi)		.0	)52*Setting	Depth*MW	1	7426		
					1		BOPE A	dequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Set	ting Depth)		5998	YES	10M BOPE w/rotating head, 5M annular, blind rams, flex ran
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Set	ting Depth)	= [	4808	YES	OK
					I		*Can Fu	all Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous S	hoe Depth)	=[[	6727	YES	

\*Assumes 1psi/ft frac gradient

YES

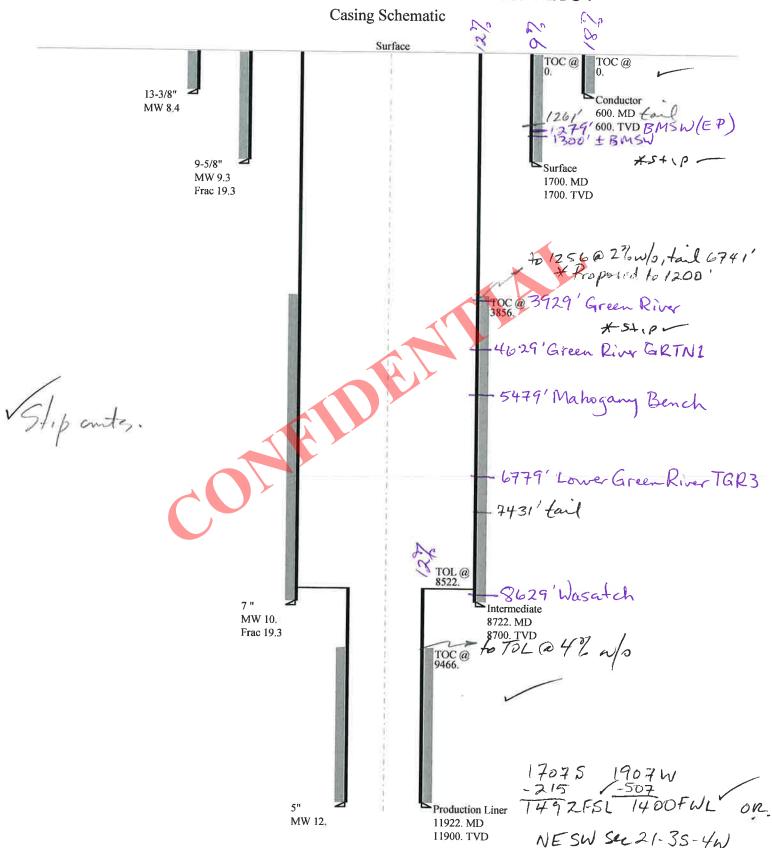
psi

psi

9758

8722

## 43013528410000 Matern Trust 4-21C4



Well name:

43013528410000 Matern Trust 4-21C4

Operator:

EP ENERGY E&P COMPANY, LP.

String type:

Conductor

Project ID:

Location:

DUCHESNE COUNTY

43-013-52841

Design parameters:

Collapse

Mud weight:

8.400 ppg Design is based on evacuated pipe.

Minimum design factors: Collapse:

Design factor

1.125

**Environment:** 

H2S considered? Surface temperature:

No 74 °F

Bottom hole temperature: Temperature gradient:

82 °F

Minimum section length:

1.40 °F/100ft 100 ft

Burst:

Design factor

1.00

1.80 (J)

1.70 (J)

1.60 (J)

Cement top:

Surface

**Burst** 

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

190 psi 0.120 psi/ft

262 psi

8 Round LTC: Buttress: Premium: Body yield:

8 Round STC:

Tension:

1.50 (J) 1.50 (B)

Tension is based on buoyed weight. Neutral point: 525 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth	Measured Depth	Drift Diameter	Est. Cost
1	600	13.375	54.50	J-55	ST&C	<b>(ft)</b> 600	<b>(ft)</b> 600	(in) 12.49	(\$) 7444
Run Seq 1	Collapse Load (psi) 262	Collapse Strength (psi) 1130	Collapse Design Factor 4.317	Burst Load (psi) 262	Burst Strength (psi) 2730	Burst Design Factor 10.43	Tension Load (kips) 28.6	Tension Strength (kips) 514	Tension Design Factor 17.95 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 27,2014 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 600 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43013528410000 Matern Trust 4-21C4

Operator:

EP ENERGY E&P COMPANY, LP.

String type:

Location:

Surface

**DUCHESNE COUNTY** 

Project ID:

43-013-52841

Design parameters:

Collapse

Mud weight:

9.300 ppg Design is based on evacuated pipe.

Minimum design factors: Collapse:

Design factor

1.125

**Environment:** 

H2S considered? Surface temperature: Bottom hole temperature:

No 74 °F 98 °F

Temperature gradient: Minimum section length:

1.40 °F/100ft

100 ft

Burst:

Design factor

1.00

Cement top:

Surface

**Burst** 

Max anticipated surface

pressure: Internal gradient: Calculated BHP

1,496 psi 0.120 psi/ft

1,700 psi

No backup mud specified.

**Tension:** 8 Round STC:

8 Round LTC: **Buttress:** 

Premium: Body yield: 1.60 (J) 1.50 (J) 1.50 (B)

1.80 (J)

1.70 (J)

Tension is based on buoyed weight. Neutral point: 1,465 ft

Non-directional string.

Re subsequent strings:

Next setting depth: Next mud weight:

8,700 ft 10.000 ppg 4,519 psi

Next setting BHP: Fracture mud wt: Fracture depth: Injection pressure:

19.250 ppg 1,700 ft 1,700 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter	Est. Cost
1	1700	9.625	40.00	N-80	LT&C	1700	1700	(in) 8.75	<b>(\$)</b> 21631
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
1	821	3090	3.763	1700	<b>(psi)</b> 5750	Factor 3.38	(kips) 58.6	<b>(kips)</b> 737	Factor 12.58 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 27,2014 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1700 ft, a mud weight of 9.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43013528410000 Matern Trust 4-21C4

Operator:

**EP ENERGY E&P COMPANY, LP.** 

String type:

Intermediate

Project ID: 43-013-52841

Location:

**DUCHESNE COUNTY** 

Design	para	ıme	cers:
Callanas			

<u>Collapse</u>

Mud weight: 10.000 ppg Design is based on evacuated pipe.

Minimum design factors: Collapse:

Design factor 1.125 **Environment:** 

H2S considered? Surface temperature: Bottom hole temperature:

No 74 °F 196 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,000 ft

Burst:

Design factor

1.00

Cement top:

3.856 ft

**Burst** 

Max anticipated surface pressure:

Internal gradient: Calculated BHP

4,800 psi 0.220 psi/ft

6,714 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) Buttress: 1.60 (J) 1.50 (J) Premium: 1.60 (B)

Body yield:

Tension is based on buoyed weight. Neutral point: 7,401 ft

Directional well information:

Kick-off point 1700 ft Departure at shoe: 551 ft Maximum dogleg: 1.5 °/100ft

Inclination at shoe: 0°

Re subsequent strings: Next setting depth:

11,900 ft Next mud weight: 12.000 ppg Next setting BHP: 7,418 psi 19.250 ppg Fracture mud wt: Fracture depth: 8,700 ft Injection pressure: 8,700 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth	Drift Diameter	Est.
1	8722	7	29.00	HCP-110	LT&C	8700	<b>(ft)</b> 8722	(in) 6.059	<b>(\$)</b> 98494
Run Seq	Collapse Load (psi) 4519	Collapse Strength (psi) 9148	Collapse Design Factor 2.024	Burst Load (psi) 6714	Burst Strength (psi) 11220	Burst Design Factor 1.67	Tension Load (kips) 214.1	Tension Strength (kips) 797	Tension Design Factor 3.72 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 27,2014 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8700 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43013528410000 Matern Trust 4-21C4 Well name:

**EP ENERGY E&P COMPANY, LP.** Operator:

**Production Liner** 

String type: Project ID: 43-013-52841

**DUCHESNE COUNTY** Location:

Design parameters: Minimum design factors: **Environment:** 

Collapse Collapse:

Mud weight: 12.000 ppg Design factor 1.125 Surface temperature: 74 °F Design is based on evacuated pipe. Bottom hole temperature: 241 °F

1.40 °F/100ft Temperature gradient:

Directional well information:

No

8.522 ft

1700 ft

551 ft

0°

1.5 °/100ft

Minimum section length: 1,000 ft

Kick-off point

Departure at shoe:

Inclination at shoe:

Maximum dogleg:

Liner top:

H2S considered?

Burst:

Design factor 1.00 9,466 ft Cement top:

Burst

Max anticipated surface

pressure: 4,800 psi Internal gradient: 0.220 psi/ft Calculated BHP

No backup mud specified.

7,418 psi 8 Round LTC: Buttress:

Body yield:

Tension: 8 Round STC:

1.80 (J) 1.80 (J) 1.60 (J) Premium: 1.50 (J)

1.60 (B)

Tension is based on buoyed weight. Neutral point: 11,297 ft

			1						
Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
•	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
1	3422	5	18.00	HCP-110	ST-L	11900	11922	4.151	271022
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
-	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
1	7418	15360	2 071	7418	13940	1.88	50.3	341	6 77 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 21,2014 Salt Lake City, Utah

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 11900 ft, a mud weight of 12 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

# ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

**Operator** EP ENERGY E&P COMPANY, L.P.

Well Name Matern Trust 4-21C4

API Number 43013528410000 APD No 9381 Field/Unit ALTAMONT

Location: 1/4,1/4 NESW Sec 21 Tw 3.0S Rng 4.0W 1707 FSL 1907 FWL

GPS Coord (UTM) 555816 4450572 Surface Owner Walter E.W. Matern Revocable Living

Trust

### **Participants**

Jared Thacker (EP Energy); Heather Ivie (Land man); Dennis Ingram (DOGM)

### Regional/Local Setting & Topography

The proposed Matern Trust 4-21C4 staked up 3.54 miles north of Duchesne, then east along a county road for 2.62 miles, then south along access road for another 0.61 miles into the well pad to the west. Regionally, this well in located in northeastern Utah in the Uintah Basin along the southern edge of Blue Bench out near Rocky Point, where several canyons head up and drain snow melt or storm waters south toward the Duchesne River Corridor; to the north and east Blue Bench rises in elevation toward Altamont. The topography at the well pad is open rangelands with short sagebrush, bunch grass and cactus that slopes gently to the southwest.

### Surface Use Plan

**Current Surface Use** 

Recreational Wildlfe Habitat

New Road

Miles

Well Pad

**Src Const Material** 

**Surface Formation** 

0.1 Width 392 Length 465

Onsite

**UNTA** 

Ancillary Facilities N

### Waste Management Plan Adequate?

### **Environmental Parameters**

Affected Floodplains and/or Wetlands N

### Flora / Fauna

Short sagebrush, Rabbit Brush, bunch grass, prickly pear cactus; potential mule deer, mountain lion, coyote, fox, raccoon, rabbits, ground squirrels and smaller mammals common to or near the Duchesne River bottoms.

### Soil Type and Characteristics

Reddish, fine-grained sand with some clays and gravels

**Erosion Issues** N

**Sedimentation Issues** N

Site Stability Issues N

RECEIVED: March 31, 2014

API Well Number: 43013528410000

Drainage Diverson Required? N

Berm Required? Y

Erosion Sedimentation Control Required? N

Paleo Survey Run? N Paleo Potental Observed? N Cultural Survey Run? N Cultural Resources? N

#### Reserve Pit

Site-Specific Factors	Site Ranking								
Distance to Groundwater (feet	> 200	0							
Distance to Surface Water (feet)	>1000	0							
Dist. Nearest Municipal Well (ft)	>5280	0							
Distance to Other Wells (feet)	>1320	0							
Native Soil Type	High permeability	20							
Fluid Type	Fresh Water	5							
Drill Cuttings	Normal Rock	0							
Annual Precipitation (inches)		0							
Affected Populations	30 to 50	30 to 50							
Presence Nearby Utility Conduits	Not Present	0							
	Final Score	33	1 Sensitivity Level						

## Characteristics / Requirements

Reserve pit staked off the south side of location in little to no cut, measuring 110' wide by 150' long by 15' deep.

Closed Loop Mud Required? Liner Required? Y Liner Thickness 20 Pit Underlayment Required?

## **Other Observations / Comments**

Landowners invited but did not attend, surface relatively flat, no drainage issues on location but does have a south draining canyon adjacent to the west.

Dennis Ingram

Evaluator

3/6/2014

Date / Time

API Well Number: 43013528410000

# Application for Permit to Drill Statement of Basis

## Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
9381	43013528410000	LOCKED	OW	P	No
Operator	EP ENERGY E&P COMPA	ANY, L.P.	Surface Owner-APD	Walter E.W. Ma Revocable Livii	
Well Name	Matern Trust 4-21C4		Unit		
Field	ALTAMONT		Type of Work	DRILL	
Location	NESW 21 3S 4W (UTM) 555819E 445	U 1707 FS 50569N	L 1907 FWL GPS	S Coord	

## **Geologic Statement of Basis**

El Paso proposes to set 600 feet of conductor and 1,700 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,300 feet. A search of Division of Water Rights records indicates that there are 8 water wells within a 10,000 foot radius of the center of Section 21. These wells probably produce water from near surface alluvium and the Duchesne River Formation. Depths of the wells fall in the range of 30-300 feet. The wells are listed as being used for irrigation, stock watering and domestic. The nearest water wells are nearly a mile north of the proposed well. The proposed drilling, casing and cement program should adequately protect the highly used Duchesne River aquifer.

Brad Hill 3/11/2014
APD Evaluator Date / Time

#### **Surface Statement of Basis**

Surface slopes southwesterly showing 2.5 feet of cut along the northeastern corner of the reserve pit and 1.7 feet of fill at the southwest edge of location. There aren't any drainage or erosion issues on this surface at the present time. A reserve pit is planned and staked along the south side of the location in cut, and shall be lined with a 20 mil synthetic liner as shown in the operator plan. The location shall also be bermed to prevent fluids from leaving the well site into an adjacent drainage to the southwest.

A presite was scheduled and done on March 6, 2014 to address issues regarding the construction and drilling of the Matern Trust 4-21C4 well. Walter Matern was contacted and invited to the presite as the landowner. E&P Energy has submitted documentation to the Division that they do have a surface damage agreement with the landowner of record.

Dennis Ingram 3/6/2014
Onsite Evaluator Date / Time

#### Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 20 mils shall be properly installed and maintained in

the reserve pit.

Pits The reserve pit should be located on the south side of the location.

Surface The well site shall be bermed to prevent fluids from leaving the pad.

RECEIVED: March 31, 2014

API Well Number: 43013528410000

## **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

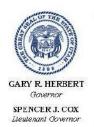
**APD RECEIVED: 2/5/2014** API NO. ASSIGNED: 43013528410000 WELL NAME: Matern Trust 4-21C4 OPERATOR: EP ENERGY E&P COMPANY, L.P. (N3850) PHONE NUMBER: 713 997-5038 CONTACT: Maria S. Gomez PROPOSED LOCATION: NESW 21 030S 040W Permit Tech Review: SURFACE: 1707 FSL 1907 FWL **Engineering Review:** Geology Review: **BOTTOM: 1500 FSL 1400 FWL COUNTY: DUCHESNE LATITUDE: 40.20366** LÓNGITUDE: -110.34412 UTM SURF EASTINGS: 555819.00 NORTHINGS: 4450569.00 FIELD NAME: ALTAMONT LEASE TYPE: 4 - Fee **LEASE NUMBER:** Fee PROPOSED PRODUCING FORMATION(S): GREEN RIVER(LWR)-WASATCH SURFACE OWNER: 4 - Fee **COALBED METHANE: NO RECEIVED AND/OR REVIEWED:** LOCATION AND SITING: ✓ PLAT R649-2-3. Bond: STATE - 400JU0708 Unit: **Potash** R649-3-2. General Oil Shale 190-5 Oil Shale 190-3 R649-3-3. Exception **Drilling Unit** Oil Shale 190-13 Board Cause No: Cause 139-90 Water Permit: Duchesne City Effective Date: 5/9/2012 **RDCC Review:** Siting: 4 Wells Per 640 Acre **Fee Surface Agreement** Intent to Commingle R649-3-11. Directional Drill **Commingling Approved** 

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhill

8 - Cement to Surface -- 2 strings - hmacdonald 12 - Cement Volume (3) - ddoucet

15 - Directional - dmason



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

## Permit To Drill

\*\*\*\*\*\*

Well Name: Matern Trust 4-21C4 API Well Number: 43013528410000

Lease Number: Fee

Surface Owner: FEE (PRIVATE)
Approval Date: 3/31/2014

#### Issued to:

EP ENERGY E&P COMPANY, L.P., 1001 Louisiana, Houston, TX 77002

#### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-90. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

## **Conditions of Approval:**

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 13 3/8" and 9 5/8" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 1200' MD and tail cement back to a minimum above the TGR3 as indicated in the submitted drilling plan.

## Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

## **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

- at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

#### **Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

## Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
  - Requests to Change Plans (Form 9) due prior to implementation
  - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved by:

For John Rogers Associate Director, Oil & Gas



Alexis Huefner < alexishuefner@utah.gov>

# EP ENERGY / MATERN TRUST 4-21C4 / API # 43013528410000 / SPUD NOTIFICATIONS

1 message

## LANDRIG009 (Precision 406) < LANDRIG009@epenergy.com>

Tue, Apr 22, 2014 at 8:39 PM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Walt, Michael Joseph" <Michael.Walt@epenergy.com>

SPUD / DRILL & SET-CMT 13 3/8" CONDUCTOR CSG

**EP ENERGY** 

**MATERN TRUST 4-21C4** 

API # 43013528410000

**ALTAMONT FIELD** 

**DUCHESNE COUNTY** 

NESW 21 35 4W

(4-15-14) SPUDDED WELL @ 8:00 AM. LEON ROSS DRILLING BUCKET RIG SET & CMT 40' OF 20" CONDUCTOR

(4-16-14) - (4-18-14) LEON ROSS DRILLING DRILLED 17 ½" HOLE TO 640' (GL). RAN 13 3/8" 54.5 # J55 STC CSG TO 630' (GL). PROPETRO CEMENTED 13 3/8" CSG ON (3-26-14) W/ 760 SX 15.8 PPG PREMIUM CEMENT. HAD 50 BBL GOOD CEMENT RETURNED TO SURFACE. CEMENT DID NO FALL BACK.

Thanks,

Roy Derden / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

903-229-2878 (Cell)

Mail

—— CONFIDENTIAL

COMPOSE

EP ENERGY / MATERN TRUST 4-21-14 / PD 406 / NOTIFICATION OF TESTING BOPE & 13 3/8" CSG

Inbox x

Inbox (6)

Starred

Important

Sent Mail

Drafts (1)

Cabinet

Follow up

Misc

**Notes** 

**Priority** 

More

LANDRIG009 (Precision 406)

8:51 PM (10 hours ago)

to alexishuefner, Bradley, me, dennisingram, Robert, Lisa, Maria, F

TEST DIVERTER & CSG / SPUD 12.25" HOLE NOTIFICATION

**EP ENERGY** 

MATERN TRUST 4-21C4

API # 43013528410000

**ALTAMONT FIELD** 

**DUCHESNE COUNTY** 

Search people...

Don Staley

Diana Mason

alexishuefner

alexisheufner

Amy Mackey

Angela Nance

barbara\_nicol

**Branden Arnold** 

**Bryan Coltharp** 

Rodrigo Jurado I...

WE HAVE MI & RU PRECISION RIG 406 ON THE ABOVE REFERENCED WELL. WE WILL BE TESTING THE 13 5/8" DIVERTER SYSTEM & 13 3/8" CSG @ APPROX 8:00 AM 4-24-14 WE ANTICIPATE SPUDDING THE 12 1/4 HOLE @ APPROX 8:00 PM 4-24-14. WE PLAN DRILLING A 12 1/4" HOLE TO 1700' & SET/CMT 9 5/8" CSG. ND DIVERTER SYSTEM. NU 11" 10M BOPE. WE ANTICIPATE TESTING THE BOPE & 9 5/8" CSG @ 6:00 PM 4-25-14. WE WILL THEN START DRILLING THE 8 3/4" INTERMEDIATE HOLE SECTION.

Thanks,

Roy Derden / Morgan Harden

EP Energy / PD 406 713-997-1220 (Rig)

903-229-2878 (Cell)





Carol Daniels <caroldaniels@utah.gov>

## NESW SEC 21 TO3S ROYW

## 24hr Notice Run & Cement Casing

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Wed, Apr 30, 2014 at 4:28 PM

To: "alexishuefner@utah.gov' <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov' <caroldaniels@utah.gov>, "dennisingram@utah.gov' <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Walt, Michael Joseph" <Michael.Walt@epenergy.com>

RE: EP Energy LLC

Matern Trust 4-21C4

API # 43013528410000

Altamont Field

Duchesne County, UT

We plan on running & cementing 7" 29# HCP-110 LTC Intermediate casing to +/- 8,720' within 24hrs.

Regards,

Tony Wilkerson

Wellsite Supervisor

EP Energy / PD 406

713-997-1220 (Rig)

318-715-7602 (Cell)



# CONFIDENTIAL

Carol Daniels < caroldaniels@utah.gov>

## NESW 521 TO35 ROYW FEE LEASE

## 24hr Notice Run & Cement Casing

1 message

LANDRIG009 (Precision 406) < LANDRIG009@epenergy.com>

Mon, May 5, 2014 at 5:04 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, David Hackford <davidhackford@utah.gov>, "dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Walt, Michael Joseph" <Michael.Walt@epenergy.com>

RE: EP Energy LLC

Matern Trust 4-21C4

API# 43013528410000

Altamont Field

Duchesne County, UT

We plan on running & cementing 5" 18# HCP-110 STL Production Liner to +/- 11,422' within 24hrs.

Regards,

Tony Wilkerson

Wellsite Supervisor

EP Energy / PD 406

713-997-1220 (Rig)

318-715-7602 (Cell)





Carol Daniels <caroldaniels@utah.gov>

## NESW SEC 21 TO3S ROYW

## 24hr Notice Run & Cement Casing

1 message

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318-715-7602 (Cell)



# CONFIDENTIAL

Carol Daniels < caroldaniels@utah.gov>

## NESW 521 TO35 ROYW FEE LEASE

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Tony Wilkerson

Wellsite Supervisor

EP Energy / PD 406

713-997-1220 (Rig)

318-715-7602 (Cell)

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	1	5.LEASE DESIGNATION AND SERIAL NUMBER: Fee
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal I n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Matern Trust 4-21C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY,	L.P.		<b>9. API NUMBER:</b> 43013528410000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston,		NE NUMBER: Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1707 FSL 1907 FWL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	HP, RANGE, MERIDIAN: 21 Township: 03.0S Range: 04.0W Meridian:	U	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
✓ NOTICE OF INTENT	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start: 7/11/2014	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
7/11/2014	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN ☐ F	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
 	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	ENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF ☐ S	SI TA STATUS EXTENSION	APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION ✓ C	OTHER	OTHER: Initial Completion
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pe	rtinent details including dates, d	
l .	(remediate liner and execute fra		Approved by the
column of cement a	across the full length of the line zone. See attached for details.		Utally B1yi20114of Oil, Gas and Mining
			Date:
			By: 197 K Junt
NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analys	t
SIGNATURE		DATE	
N/A		7/2/2014	

## Matern Trust 4-21C4

# Initial Completion and Remedial Cementing Continuous Operation API #: 43013528410000

## The following precautions will be taken until the RCA for the Conover is completed:

- 1. Review torque turning and running of the 7" and 5" liner of anomalies.
- **2.** Test and chart casing for 30 minutes, noting pressure if any on surface casing.
- **3.** Test all lubricators, valves and BOP's to working pressure.
- **4.** Wellhead isolation tools will continue to be used to isolate the wellhead during the frac.
- **5**. Monitor the surface casing during frac:
  - **a.** Lay a flowline to the flow back tank and keep the valve open.
  - **b.** This line will remain in place until a wire line set retrievable packer is in place isolating the 5" casing from the 7" after the frac.
- **6**. 2 7/8" tubing will be run to isolate the 7" casing during the flow back of the well.
- 7. Well pressure and annulus pressure would be monitored during this time until the well is ready for pump.

## **Ideal Completion Information (Wasatch Formation)**

Stage #1	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from $^{\sim}10904'-11260'$ with $^{\sim}5000$ gallons of 15% HCL acid, $^{\sim}3000$ # of 100 mesh sand and $^{\sim}130000$ # of TLC 30/50. Total clean water volume is 112540 gals.
Stage #2	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from $^{\sim}10459'-10778'$ with $^{\sim}5000$ gallons of 15% HCL acid, $^{\sim}3000$ # of 100 mesh sand and $^{\sim}130000$ # of TLC 30/50. Total clean water volume is 111876 gals.
Stage #3	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from $^{\sim}10162'-10389'$ with $^{\sim}5000$ gallons of 15% HCL acid, $^{\sim}3000$ # of 100 mesh sand and $^{\sim}130000$ # of TLC 30/50. Total clean water volume is 111433 gals.
Stage #4	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from $^\circ9867'-10102'$ with $^\circ5000$ gallons of 15% HCL acid, $^\circ3000$ # of 100 mesh sand and $^\circ130000$ # of TLC 30/50. Total clean water volume is 110993 gals.
Stage #5	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from $^{\circ}9615'-9843'$ with $^{\circ}5000$ gallons of 15% HCL acid, $^{\circ}3000$ # of 100 mesh sand and

~145000 # of TLC 30/50. Total clean water volume is 121542 gals.

RECEIVED: Jul. 02, 2014

Page 2 of 3

Stage #6 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from

~9321' – 9592' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and

~150000 # of TLC 30/50. Total clean water volume is 123412 gals.

Stage #7 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from

~8965' – 9293' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and

~155000 # of TLC 30/50. Total clean water volume is 125189 gals.

## **Stimulation Summary**

	Top Perf	Btm. Perf	Gross Interval	Plug Depth	Net Perf Length	Total Shots	Perf Intervals	Type of Prop	Lbs of Prop	Lbs/ft	Lbs of 100 Mesh	Gals of HCL (15%)	Gals of Clean H2O	Gals of Slurry
Stage #1	10,904	11,260	356	NA	23	69	17	TLC 30/50	130,000	365	3,000	5,000	112,540	123,738
Stage #2	10,459	10,778	319	NA	22	66	16	TLC 30/50	130,000	408	3,000	5,000	111,876	123,074
Stage #3	10,162	10,389	227	NA	18	54	13	TLC 30/50	130,000	573	3,000	5,000	111,433	122,631
Stage #4	9,867	10,102	235	NA	23	69	16	TLC 30/50	130,000	553	3,000	5,000	110,993	122,191
Stage #5	9,615	9,843	228	NA	20	60	15	TLC 30/50	145,000	636	3,000	5,000	121,542	133,439
Stage #6	9,321	9,592	271	NA	23	69	17	TLC 30/50	150,000	554	3,000	5,000	123,412	135,542
Stage #7	8,965	9,293	328	NA	23	69	17	TLC 30/50	155,000	473	3,000	5,000	125,189	137,552
Average p	er Stage		281		22	65	16		138,571	509	3,000	5,000	116,712	128,310
Totals per	Well		1,964		152	456	111		970,000	•	21,000	35,000	816,985	898,168

#### Remedial Cementing & Frac Procedure

- 1 RU Frac Crew & equipment
- 2 Pressure Test Lines
- 3 Frac Stages 1 &2 according to design on stimulation sheet Note: The 5" liner, Usable top of cement is at 10,270'
- 4 Flow back Stages 1 &2 for a week (to get frac fluid off formation)

#### Cycle 1: Squeeze & Frac 2 stages Procedure:

- 5 RU Wireline & equipment
- 6 Set CBP 20' below the planned squeeze perforations at 10,290'
- 7 Perforate 2' (4SPF) squeeze holes 25' above TOC, at 10,245' (Note: Usable TOC is at 10,270')
- 8 RU WO rig and cement crew, GIH with stick pipe and retainer, set retainer at 10,235'
- $9\,$  Establish injection rate and pump 50 sacks Class H squeeze job

Note: (Report Injection rate and pressure to completions engineer)

- 10 WOC (Run Bond Log to determine new TOC2)
- 11 If coverage enough 2stages, DO cement retainer with Rig and frac stages 3 & 4.

(Note: use flow through ball plug or check valve flow back capable plug)

12 flow back stages 3&4 for 2 days.

#### **Cycle 2: Squeeze & Frac Procedure:**

- 13 RU Wireline & equipment
- 14 Set CBP at TOC point in the casing.

RECEIVED: Jul. 02, 2014

- 15 Perforate 2' (4SPF) squeeze holes 25' above TOC2
- 16 Perforate 2' (4SPF) squeeze holes on 80' above the shallowes planned perfs for stage 7
- 17 Note: Shallowest planned perf~8965. Squeeze perf holes~8885
- 19 Establish small injection rate (2 BPM and see pressures)
- 18 RU WO rig , equipment and cement crew, GIH with stick pipe and retainer, set retainer 20' above deeper squeeze perfs'
- 20 Establish circulation injection rate and determine volume of cement to be pumped
- 21 Establish circulation injection rate and pump 50/volume calculated sacks (Class H) squeeze job Note:(Report and discuss Injection rate and pressure to completions engineer)
- 22 WOC (Run Bond Log to determine new TOC3)
- 23 if good coverage on 3 srages, drill out CIBP
- 24 perforate and frac 3 stages (Stage 5,6&7)
- 25 RU coil and drill out and clean out to Float collar.



#### **Pre-Completion Wellbore Schematic**

Well Name: Matern Trust 4-21C4

Company Name: EP Energy

Field, County, State: Altamont, Duchesne, UT

Surface Location: Lat: 40 12' 13.171" N Long: 110 20' 38.809" W

Producing Zone(s): UW

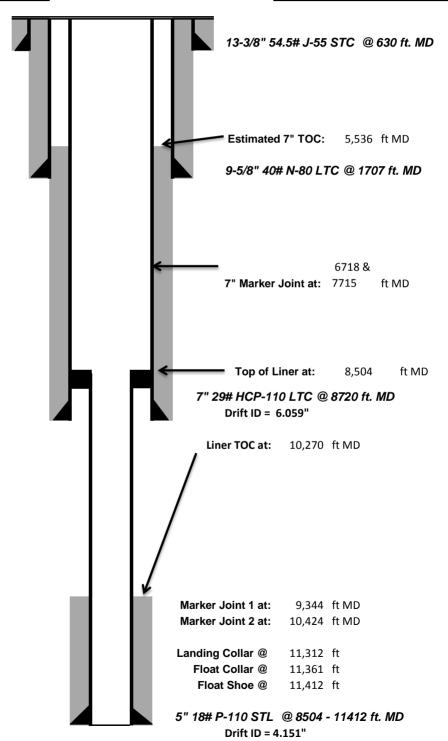
 By:
 Mohammad Siddiqui

 TD:
 11,412

 API:
 43013528410000

 AFE:
 161605

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore





## **Post-Completion Wellbore Schematic**

Well Name: Matern Trust 4-21C4

Company Name: EP Energy

Field, County, State: Altamont, Duchesne, UT

Surface Location: Lat: 40 12' 13.171" N Long: 110 20' 38.809" W

Producing Zone(s): UW

 Last Updated:
 6/6/2014

 By:
 Mohammad Siddiqui

 TD:
 11,412

 API:
 43013528410000

 AFE:
 161605

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore

13-3/8" 54.5# J-55 STC @ 630 ft. MD **Estimated TOC at:** 5,536 ft MD 9-5/8" 40# N-80 LTC @ 1707 ft. MD **7" Marker Joint at:** 6718 & 7ft MD Production Tubing: 2 7/8" Top of Liner at: 8,504 ft MD 7" 29# HCP-110 LTC @ 8720 ft. MD Drift ID = 6.059" Production Packer @ 8604 ft 10,270 ft MD Liner TOC at: Plan for Remedial Cement followed by With 3 stage Frac. (Stages Dependant on Cement Top) Plan for Remedial Cement followed by With 3 stage Frac. (Stages Dependant on Cement Top) Marker Joint 1 @: 9,344 ft MD Marker Joint 2 @: 10,424 ft MD 2 Stage Frac Landing Collar @ 11,312 ft Float Collar @ 11,361 ft Float Shoe @ 11,412 ft

gal HCL & lbs

o - '/ shots
gal HCL & lbs

o - '/ shots
gal HCL & lbs

0

**Initial Completion Perf Information** 

' / shots

o '/ shots gal HCL & lbs

<u>0</u> - '/ shots

gal HCL & lbs  $\underline{\mathbf{0}} \qquad \text{-} \qquad \text{'/shots}$ 

gal HCL & lbs

- '/shots
gal HCL & lbs

RECEIVED: Jul. 02, 2014

5" 18# P-110 STL @ 8504 - 11412 ft. MD

Drift ID = 4.151"

			DEPAF	_	TATE (			URCES	6					NDED F	REPORT _	FORM 8
		[	DIVISI	ON O	F OIL,	GAS	AND I	MININ	G				5. LE/	ASE DESIG	GNATION AND	SERIAL NUMBER:
WEL	L CON	/IPLET	ION	OR I	RECO	OMPL	ETIC	N RI	EPOR	T ANI	D LOG		6. IF I	NDIAN, AL	LOTTEE OR T	RIBE NAME
1a. TYPE OF WELL	:	O W		1	GAS E	7	DRY	П	OTHE	:R			7. UN	IT or CA A	GREEMENT NA	AME
b. TYPE OF WOR	K:	**		_	WLLL <b>-</b>	<u> </u>	•						8. WE	LL NAME :	and NUMBER:	
NEW WELL	HORIZ. LATS.	] Di	N _	]	RE- ENTRY		DIFF. RESVR.		OTHE	R						
2. NAME OF OPERA	ATOR:												9. API	NUMBER	:	
3. ADDRESS OF OF	PERATOR:	C	ITY			STATE		ZIP		PHONE	NUMBER:		10 FIE	LD AND P	OOL, OR WILD	CAT
4. LOCATION OF W AT SURFACE:	VELL (FOOT	AGES)								•			11. Q M	TR/QTR, S ERIDIAN:	ECTION, TOW	NSHIP, RANGE,
AT TOP PRODU	CING INTER	RVAL REPOI	RTED BE	LOW:												
AT TOTAL DEPT	гн:												12. C0	OUNTY		13. STATE UTAH
14. DATE SPUDDE	D:	15. DATE T	.D. REAC	CHED:	16. DAT	E COMPL	ETED:	,	ABANDONE	:D 🗌	READY TO P	PRODUCE		7. ELEVA	TIONS (DF, RK	(B, RT, GL):
18. TOTAL DEPTH:	MD			19. PLUG	BACK T.I	D.: MD			20. IF M	ULTIPLE C	OMPLETIONS	S, HOW MA	ANY? * 2	1. DEPTH	BRIDGE M	D
22. TYPE ELECTRIC	TVD	ED MEQUAN	11001110	00 DUN	(O. d it	TVD	`			23.						/D
										WAS DST	LL CORED? RUN?  DNAL SURVEY	<b>'</b> ?	NO L NO C	YE:	s (Su	bmit analysis) bmit report) bmit copy)
24. CASING AND L	INER RECO	RD (Report	all string	s set in w	vell)				CTACE C	EMENTER	CEMENT T	VDE 0	SLURF	27		
HOLE SIZE	SIZE/GI	RADE	WEIGHT	Γ (#/ft.)	TOP (MD) BOTTON			OM (MD)	DEPTH NO. OF				VOLUME		CEMENT TOP	** AMOUNT PULLED
25. TUBING RECOR	RD				<u> </u>		l		<u>l</u>		<u> </u>					
SIZE	DEPTH	SET (MD)	PACK	(ER SET (	(MD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)	8	SIZE	DEF	PTH SET (MD)	PACKER SET (MD)
26. PRODUCING IN	ITERVALS								I.	27 PERFO	RATION REC	OPD				
FORMATION		TOP	(MD)	BOTT	OM (MD)	TOP	(TVD)	вотто	M (TVD)		AL (Top/Bot - M		SIZE N	IO. HOLES	S PERF	ORATION STATUS
(A)															Open	Squeezed
(B)															Open	Squeezed
(C)															Open	Squeezed
(D)															Open	Squeezed
28. ACID, FRACTUI	RE, TREATI	MENT, CEMI	ENT SQU	EEZE, ET	rc. See	e at	tach	ed f	or f	urth	er inf	orma	atio:	n on	#27 &	#28.
DEPTH	INTERVAL								AMC	OUNT AND	TYPE OF MAT	ERIAL				
			<u> </u>													
			<u> </u>													
29. ENCLOSED AT	TACHMENT	s: All	100	gs a	re s	ubmi	tted	d to	UDO	GM by	vend	or.			30. WE	ELL STATUS:
_	RICAL/MEC						_		C REPORT	_	DST REPORT		DIRECTI	ONAL SUF	RVEY	
SUNDF	RY NOTICE	FOR PLUGG	ING AND	CEMEN <sup>-</sup>	T VERIFIC	ATION		CORE AN	ALYSIS		OTHER:					

(CONTINUED ON BACK)

31. INITIAL PRO	DDUCTION				INT	ERVAL A (As sho	wn in item #26)							
DATE FIRST PR	ODUCED:	TEST DAT	TE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL – I	BBL:	GAS –	MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL – I	BBL:	GAS –	MCF:	WATER -	- BBL:	INTERVAL STATUS:
			•		INT	ERVAL B (As sho	wn in item #26)					•		
DATE FIRST PR	ODUCED:	TEST DAT	TE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL – I	BBL:	GAS –	MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL – I	BBL:	GAS –	MCF:	WATER -	- BBL:	INTERVAL STATUS:
					INT	ERVAL C (As sho	wn in item #26)							
DATE FIRST PR	ODUCED:	TEST DAT	TE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL – E	BBL:	GAS –	MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL – I	BBL:	GAS –	MCF:	WATER -	- BBL:	INTERVAL STATUS:
					INT	ERVAL D (As sho	wn in item #26)							
DATE FIRST PR	ODUCED:	TEST DAT	TE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL – I	BBL:	GAS-	MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	ESS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL – I	BBL:	GAS -	MCF:	WATER -	- BBL:	INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (Solo	d, Used for Fi	uel, Vented, Etc	:.)										
33. SUMMARY	OF POROUS ZO	NES (Include	Aquifers):				3	34. FORM	MATION (L	og) MAR	KERS:			
Show all importa tested, cushion u						n tests, including de	epth interval							
Formatio	on	Top (MD)	Bottom (MD)		Descrip	tions, Contents, etc	<b>.</b> .	Name					(	Top Measured Depth)
35. ADDITIONA	L REMARKS (In	clude pluggii	ng procedure)	•									•	
36. I hereby cer	tify that the fore	egoing and at	ttached informa	ation is c	omplete and corre	ect as determined	from all available rec	ords.			_			
NAME (PLEAS	E PRINT)						TITLE							
SIGNATURE _							DATE							

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

<sup>\*</sup> ITEM 20: Show the number of completions if production is measured separately from two or more formations.

## **Attachment to Well Completion Report**

## Form 8 Dated October 3, 2014

Well Name: Matern Trust 4-21C4

**Items #27 and #28 Continued** 

## 27. Perforation Record

Interval (Top/Bottom – MD)	Size	No. of Holes	Perf. Status
9806'-9840'	.43	60	Open
9265'-9565'	.43	69	Open
9041'-9217'	.43	45	Open

## 28. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9867'-10102'	20000 gal acid
9806'-9840'	5000 gal acid, 3000# 100 mesh, 145380# 20/40 TLC
9265'-9565'	30000 gal acid, 6000# WDA-221 Diverting Agent
9041'-9217'	21000 gal acid, 4000# WDA-221 Diverting Agent

**EP** ENERGY\*

EP Energy Calculation Method Minimum Curvature Company: Job Number: Matern Trust 4-21C4 0.00 KB Well: Mag Decl.: **Proposed Azimuth** Duchesne, UT Dir Driller: Location: **Depth Reference** Tie Into: Rig: Precision 406 MWD Eng: Gyro/MWD

Survey	Survey	Inclina-		Course	True Vertical	Vertical	Ι (	Coord	dinates		Clos	ure	Dogleg	Build	Walk
Number	Depth	tion	Azimuth	Length	Depth	Section	N/S		E/W			Direction		Rate	Rate
	(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	Azimuth	,	(d/100')	(d/100')
-	(/	(409)	(0.09)	(,	(1.5)	(/	(1.4)		(1.5)		(1.5)	7	(5,, 100)	(5,7 100)	(5, 100)
Tie In	0.00	0.00	0.00												
1	100.00	0.29	149.62	100.00	100.00	-0.22	0.22	S	0.13	Е	0.25	149.62	0.29	0.29	149.62
2	200.00	0.27	154.23	100.00	200.00	-0.64	0.64	S	0.36	Е	0.74	151.08	0.03	-0.02	4.62
3	300.00	0.37	153.32	100.00	300.00	-1.14	1.14	S	0.60	Е	1.29	152.21	0.10	0.10	-0.91
4	400.00	0.34	192.71	100.00	399.99	-1.71	1.71	S	0.68	Ε	1.84	158.34	0.24	-0.03	39.39
5	500.00	0.30	167.85	100.00	499.99	-2.25	2.25	S	0.67	Ε	2.35	163.43	0.14	-0.04	-24.86
6	600.00	0.24	183.40	100.00	599.99	-2.71	2.71	S	0.71	Е	2.80	165.30	0.09	-0.06	15.55
7	700.00	0.47	185.41	100.00	699.99	-3.32	3.32	S	0.66	Е	3.39	168.77	0.23	0.23	2.02
8	800.00	0.55	166.83	100.00	799.99	-4.20	4.20	S	0.73	Е	4.26	170.12	0.18	0.09	-18.59
9	900.00	0.75	183.48	100.00	899.98	-5.32	5.32	S	0.80	Е	5.38	171.43	0.27	0.20	16.66
10	1000.00	0.63	207.37	100.00	999.97	-6.46	6.46	S	0.51	Е	6.48	175.50	0.31	-0.12	23.89
11	1100.00	0.79	189.54	100.00	1099.97	-7.62	7.62	S	0.14	Е	7.62	178.94	0.27	0.15	-17.84
12	1200.00	0.85	194.46	100.00	1199.96	-9.01	9.01	S	0.16	W	9.02	181.00	0.09	0.06	4.92
13	1300.00	0.80	201.42	100.00	1299.94	-10.38	10.38	S	0.59	W	10.39	183.28	0.11	-0.05	6.96
14	1400.00	0.63	228.52	100.00	1399.94	-11.38	11.38	S	1.26	W	11.45	186.30	0.37	-0.17	27.10
15	1500.00	0.66	225.64	100.00	1499.93	-12.15	12.15	S	2.08	W	12.32	189.70	0.05	0.04	-2.88
16	1600.00	0.98	230.27	100.00	1599.92	-13.10	13.10	S	3.15	W	13.47	193.51	0.33	0.32	4.63
17	1635.00	0.95	244.74	35.00	1634.92	-13.41	13.41	S	3.64	W	13.90	195.18	0.70	-0.09	41.35
18	1764.00	1.06	238.71	129.00	1763.90	-14.49	14.49	S	5.62	W	15.54	201.21	0.12	0.09	-4.68
19	1860.00	2.16	279.44	96.00	1859.86	-14.65	14.65	S	8.17	W	16.77	209.14	1.59	1.15	42.43
20	1957.00	4.51	278.58	97.00	1956.69	-13.78	13.78	S	13.74	W	19.46	224.92	2.42	2.42	-0.89
21	2052.00	4.28	276.33	95.00	2051.41	-12.83	12.83	S	20.96	W	24.58	238.52	0.30	-0.24	-2.37
22	2148.00	4.05	275.10	96.00	2147.16	-12.14	12.14	S	27.90	W	30.42	246.49	0.26	-0.24	-1.28
23	2245.00	4.79	270.70	97.00	2243.87	-11.78	11.78	S	35.36	W	37.27	251.57	0.84	0.76	-4.54
24	2340.00	4.92	268.00	95.00	2338.53	-11.88	11.88	S	43.39	W	44.99	254.69	0.28	0.14	-2.84
25	2437.00	4.61	261.65	97.00	2435.19	-12.59	12.59	S	51.41	W	52.93	256.24	0.63	-0.32	-6.55
26	2532.00	4.41	259.30	95.00	2529.90	-13.82	13.82	S	58.77	W	60.38	256.77	0.29	-0.21	-2.47
27	2629.00	4.44	259.33	97.00	2626.61	-15.21	15.21	S	66.13	W	67.85	257.05	0.03	0.03	0.03
28	2725.00	4.21	256.90	96.00	2722.33	-16.69	16.69	S	73.21	W	75.09	257.15	0.31	-0.24	-2.53
29	2821.00	4.64	273.82	96.00	2818.05	-17.23	17.23	S	80.52	W	82.34	257.92	1.43	0.45	17.63
30	2917.00	4.40	266.60	96.00	2913.75	-17.19	17.19	S	88.07	W	89.73	258.95	0.64	-0.25	-7.52
31	3013.00	3.87	261.51	96.00	3009.50	-17.89	17.89	S	94.95	W	96.62	259.33	0.67	-0.55	-5.30
32	3109.00	4.27	265.94	96.00	3105.26	-18.62	18.62	S	101.72		103.41	259.63	0.53	0.42	4.61
33	3205.00	4.24 4.07	267.18	96.00	3201.00	-19.05	19.05	S	108.83 115.74	W W	110.48 117.41	260.07	0.10	-0.03 -0.18	1.29
34 35	3301.00	3.96	261.09 263.34	96.00	3296.75	-19.75	19.75	S		W	117.41	260.31	0.49 0.20	-0.18 -0.11	-6.34
35	3397.00	3.96	263.34	96.00	3392.51	-20.66	20.66	১	122.40	۷۷	124.13	260.42	0.20	-0.11	2.34

RECEIVED: Oct. 03, 2014

**EP** ENERGY\*

EP Energy Calculation Method Minimum Curvature Company: Job Number: Matern Trust 4-21C4 0.00 KB Well: Mag Decl.: **Proposed Azimuth** Duchesne, UT Dir Driller: Location: **Depth Reference** Rig: Precision 406 MWD Eng: Tie Into: Gyro/MWD

Survey	Survey	Inclina-	l :	Course	True Vertical	Vertical	l (	:oor	dinates		Clos	ure	Dogleg	Build	Walk
Number	Depth	tion	Azimuth	Length	Depth	Section	N/S		E/W		Distance			Rate	Rate
1 (0111201	(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	Azimuth	(d/100')	(d/100')	(d/100')
36	3494.00	4.12	266.73	97.00	3489.27	-21.25	21.25	S	129.20	W	130.94	260.66	0.30	0.16	3.49
37	3590.00	3.70	255.79	96.00	3585.05	-22.21	22.21	S	135.65	W	137.45	260.70	0.89	-0.44	-11.40
38	3686.00	3.32	250.52	96.00	3680.87	-23.90	23.90	S	141.27	W	143.28	260.40	0.52	-0.40	-5.49
39	3782.00	4.27	248.53	96.00	3776.66	-26.13	26.13	S	147.22	W	149.52	259.93	1.00	0.99	-2.07
40	3879.00	4.27	249.83	97.00	3873.39	-28.70	28.70	S	153.97	W	156.62	259.44	0.10	0.00	1.34
41	3975.00	4.14	244.93	96.00	3969.13	-31.40	31.40	S	160.46	W	163.51	258.93	0.40	-0.14	-5.10
42	4071.00	3.98	238.57	96.00	4064.89	-34.60	34.60	S	166.44	W	170.00	258.26	0.50	-0.17	-6.63
43	4167.00	3.83	229.30	96.00	4160.67	-38.43	38.43	S	171.72	W	175.97	257.38	0.68	-0.16	-9.66
44	4263.00	3.63	265.47	96.00	4256.47	-40.76	40.76	S	177.18	W	181.81	257.04	2.42	-0.21	37.68
45	4359.00	4.56	269.01	96.00	4352.23	-41.07	41.07	S	184.02	W	188.55	257.42	1.00	0.97	3.69
46	4456.00	4.20	256.91	97.00	4448.95	-41.94	41.94	S	191.34	W	195.88	257.64	1.02	-0.37	-12.47
47	4552.00	3.07	270.40	96.00	4544.75	-42.72	42.72	S	197.33	W	201.91	257.79	1.47	-1.18	14.05
48	4649.00	4.71	276.13	97.00	4641.53	-42.28	42.28	S	203.89	W	208.23	258.29	1.74	1.69	5.91
49	4744.00	3.97	263.48	95.00	4736.26	-42.23	42.23	S	211.04	W	215.22	258.68	1.27	-0.78	-13.32
50	4840.00	3.65	252.17	96.00	4832.05	-43.55	43.55	S	217.25	W	221.57	258.67	0.85	-0.33	-11.78
51	4936.00	5.49	262.57	96.00	4927.74	-45.08	45.08	S	224.71	W	229.19	258.66	2.09	1.92	10.83
52	5032.00	4.85	252.28	96.00	5023.35	-46.90	46.90	S	233.13	W	237.80	258.62	1.17	-0.67	-10.72
53	5128.00	3.64	253.26	96.00	5119.08	-49.02	49.02	S	239.92	W	244.87	258.45	1.26	-1.26	1.02
54	5224.00	3.37	270.98	96.00	5214.91	-49.85	49.85	S	245.66	W	250.66	258.53	1.16	-0.28	18.46
55	5321.00	4.34	281.94	97.00	5311.69	-49.04	49.04	S	252.10	W	256.82	258.99	1.25	1.00	11.30
56	5417.00	4.06	272.19	96.00	5407.43	-48.16	48.16	S	259.05	W	263.49	259.47	0.80	-0.29	-10.16
57	5513.00	3.34	262.56	96.00	5503.23	-48.39	48.39	S	265.22	W	269.59	259.66	0.99	-0.75	-10.03
58	5609.00	3.67	265.64	96.00	5599.05	-48.99	48.99	S	271.05	W	275.44	259.76	0.40	0.34	3.21
59	5705.00	4.53	268.37	96.00	5694.81	-49.33	49.33	S	277.91	W	282.25	259.94	0.92	0.90	2.84
60	5801.00	4.25	263.30	96.00	5790.52	-49.85	49.85	S	285.23	W	289.55	260.09	0.50	-0.29	-5.28
61	5897.00	3.91	255.78	96.00	5886.28	-51.07	51.07	S	291.93	W	296.37	260.08	0.66	-0.35	-7.83
62	5993.00	3.53	249.75	96.00	5982.08	-52.90	52.90	S	297.88	W	302.54	259.93	0.57	-0.40	-6.28
63	6089.00	4.03	264.25	96.00	6077.87	-54.26	54.26	S	304.01	W	308.81	259.88	1.12	0.52	15.10
64	6185.00	4.16	263.35	96.00	6173.63	-55.00	55.00	S	310.82	W	315.65	259.97	0.15	0.14	-0.94
65	6282.00	3.89	255.38	97.00	6270.39	-56.24	56.24	S	317.50	W	322.44	259.96	0.64	-0.28	-8.22
66	6377.00	3.72	251.93	95.00	6365.18	-58.01	58.01	S	323.55	W	328.71	259.84	0.30	-0.18	-3.63
67	6473.00	3.51	241.67	96.00	6460.99	-60.37	60.37	S	329.10	W	334.59	259.61	0.71	-0.22	-10.69
68	6569.00	3.39	234.45	96.00	6556.82	-63.41	63.41	S	333.99	W	339.96	259.25	0.47	-0.13	-7.52
69	6665.00	3.41	232.00	96.00	6652.65	-66.82	66.82	S	338.55	W	345.08	258.84	0.15	0.02	-2.55
70	6761.00	3.26	229.59	96.00	6748.48	-70.35	70.35	S	342.88	W	350.02	258.41	0.21	-0.16	-2.51
71	6856.00	3.17	219.83	95.00	6843.34	-74.11	74.11	S	346.62	W	354.46	257.93	0.58	-0.09	-10.27
72	6953.00	2.60	228.68	97.00	6940.21	-77.63	77.63	S	349.99	W	358.50	257.49	0.74	-0.59	9.12

RECEIVED: Oct. 03, 2014

**EP** ENERGY\*

EP Energy Calculation Method Minimum Curvature Company: Job Number: Matern Trust 4-21C4 0.00 KB Well: Mag Decl.: **Proposed Azimuth** Duchesne, UT Dir Driller: Location: **Depth Reference** Rig: Precision 406 MWD Eng: Tie Into: Gyro/MWD

Survey	Survey	Inclina-	l	Course	True Vertical	Vertical		:oord	dinates		Clos	ure	Dogleg	Build	Walk
Number	Depth	tion	Azimuth	Length	Depth	Section	N/S		E/W		Distance			Rate	Rate
1 (0.11.50)	(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	Azimuth	(d/100')	(d/100')	(d/100')
73	7049.00	2.58	225.04	96.00	7036.11	-80.59	80.59	S	353.15	W	362.23	257.15	0.17	-0.02	-3.79
74	7144.00	2.59	208.11	95.00	7131.02	-83.99	83.99	S	355.68	W	365.46	256.71	0.80	0.01	-17.82
75	7240.00	2.46	204.78	96.00	7226.93	-87.78	87.78	S	357.56	W	368.18	256.21	0.20	-0.14	-3.47
76	7337.00	2.87	213.64	97.00	7323.82	-91.69	91.69	S	359.78	W	371.28	255.70	0.60	0.42	9.13
77	7433.00	2.53	205.02	96.00	7419.72	-95.61	95.61	S	362.01	W	374.42	255.21	0.55	-0.35	-8.98
78	7529.00	1.57	216.71	96.00	7515.65	-98.59	98.59	S	363.69	W	376.82	254.83	1.09	-1.00	12.18
79	7625.00	1.23	286.74	96.00	7611.63	-99.34	99.34	S	365.47	W	378.73	254.79	1.70	-0.35	72.95
80	7720.00	1.19	277.15	95.00	7706.61	-98.93	98.93	S	367.42	W	380.51	254.93	0.22	-0.04	-10.09
81	7817.00	0.95	236.77	97.00	7803.59	-99.24	99.24	S	369.09	W	382.20	254.95	0.80	-0.25	-41.63
82	7913.00	1.33	199.41	96.00	7899.58	-100.73	100.73	S	370.13	W	383.59	254.78	0.85	0.40	-38.92
83	8010.00	1.95	197.97	97.00	7996.54	-103.36	103.36	S	371.01	W	385.14	254.43	0.64	0.64	-1.48
84	8106.00	1.55	239.16	96.00	8092.49	-105.58	105.58	S	372.63	W	387.30	254.18	1.34	-0.42	42.91
85	8202.00	2.48	211.36	96.00	8188.44	-108.02	108.02	S	374.83	W	390.08	253.92	1.38	0.97	-28.96
86	8299.00	1.92	180.44	97.00	8285.37	-111.44	111.44	S	375.93	W	392.10	253.49	1.33	-0.58	-31.88
87	8394.00	3.16	168.15	95.00	8380.27	-115.59	115.59	S	375.41	W	392.80	252.89	1.42	1.31	-12.94
88	8490.00	1.64	242.68	96.00	8476.20	-118.81	118.81	S	376.08	W	394.40	252.47	3.28	-1.58	77.64
89	8587.00	1.80	311.03	97.00	8573.17	-118.45	118.45	S	378.47	W	396.57	252.62	2.00	0.16	70.46
90	8657.00	1.41	289.49	70.00	8643.14	-117.44	117.44	S	380.11	W	397.84	252.83	1.02	-0.56	-30.77
91	8800.00	1.18	266.12	143.00	8786.11	-116.95	116.95	S	383.23	W	400.68	253.03	0.40	-0.16	-16.34
92	8900.00	1.22	218.94	100.00	8886.09	-117.85	117.85	S	384.93	W	402.57	252.98	0.96	0.04	-47.18
93	9000.00	1.82	196.38	100.00	8986.05	-120.20	120.20	S	386.05	W	404.33	252.71	0.84	0.60	-22.56
94	9100.00	2.61	184.91	100.00	9085.98	-123.99	123.99	S	386.69	W	406.08	252.22	0.90	0.79	-11.47
95	9200.00	3.07	182.03	100.00	9185.85	-128.93	128.93	S	386.98	W	407.89	251.57	0.49	0.46	-2.88
96	9300.00	3.06	182.48	100.00	9285.71	-134.28	134.28	S	387.19	W	409.81	250.87	0.03	-0.01	0.44
97	9400.00	2.87	184.86	100.00	9385.58	-139.44	139.44	S	387.52	W	411.84	250.21	0.23	-0.19	2.38
98	9500.00	3.21	191.06	100.00	9485.44	-144.69	144.69	S	388.27	W	414.35	249.56	0.47	0.34	6.20
99	9600.00	3.14	180.95	100.00	9585.28	-150.17	150.17	S	388.85	W	416.84	248.88	0.56	-0.07	-10.12
100	9700.00	3.21	191.52	100.00	9685.13	-155.65	155.65	S	389.45	W	419.41	248.21	0.59	0.07	10.58
101	9800.00	3.03	176.87	100.00	9784.99	-161.03	161.03	S	389.87	W	421.82	247.56	0.82	-0.18	-14.66
102	9900.00	3.04	179.57	100.00	9884.85	-166.32	166.32	S	389.70	W	423.71	246.89	0.14	0.01	2.71
103	10000.00	3.16	178.57	100.00	9984.70	-171.72	171.72	S	389.62	W	425.78	246.21	0.13	0.12	-1.01
104	10100.00	3.21	176.53	100.00	10084.54	-177.27	177.27	S	389.38	W	427.83	245.52	0.12	0.05	-2.04
105	10200.00	3.18	180.14	100.00	10184.39	-182.84	182.84	S	389.21	W	430.02	244.84	0.20	-0.02	3.61
106	10300.00	3.24	177.78	100.00	10284.23	-188.45	188.45	S	389.11	W	432.34	244.16	0.14	0.06	-2.36
107	10400.00	3.24	178.09	100.00	10384.07	-194.09	194.09	S	388.91	W	434.65	243.48	0.02	0.00	0.32
108	10500.00	3.07	181.07	100.00	10483.92	-199.60	199.60	S	388.86	W	437.10	242.83	0.23	-0.17	2.98
109	10600.00	3.18	176.39	100.00	10583.77	-205.04	205.04	S	388.74	W	439.50	242.19	0.28	0.11	-4.68

RECEIVED: Oct. 03, 2014

**EP** ENERGY\*

**EP Energy** Calculation Method Minimum Curvature Company: Job Number: Matern Trust 4-21C4 0.00 KB Well: Mag Decl.: **Proposed Azimuth** Duchesne, UT Location: Dir Driller: **Depth Reference** Gyro/MWD Rig: Precision 406 MWD Eng: Tie Into:

Survey	Survey	Inclina-		Course	True Vertical	Vertical	Cod	ord	dinates		Clos	ure	Dogleg	Build	Walk
Number	Depth	tion	Azimuth	Length	Depth	Section	N/S		E/W		Distance	Direction	Severity	Rate	Rate
	(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	Azimuth	(d/100')	(d/100')	(d/100')
110	10700.00	2.99	177.35	100.00	10683.63	-210.41	210.41	S	388.44	W	441.77	241.56	0.19	-0.19	0.95
111	10800.00	2.84	179.61	100.00	10783.50	-215.50	215.50	S	388.31	W	444.10	240.97	0.19	-0.15	2.27
112	10900.00	3.01	184.74	100.00	10883.37	-220.59	220.59	S	388.51	W	446.76	240.41	0.31	0.17	5.12
113	11000.00	3.21	182.73	100.00	10983.22	-226.01	226.01	S	388.86	W	449.76	239.83	0.23	0.20	-2.01
114	11100.00	3.18	183.72	100.00	11083.06	-231.57	231.57	S	389.17	W	452.86	239.25	0.06	-0.03	0.99
115	11200.00	3.10	186.77	100.00	11182.91	-237.03	237.03	S	389.67	W	456.10	238.69	0.19	-0.08	3.05
116	11271.00	3.48	190.64	71.00	11253.80	-241.06	241.06	S	390.29	W	458.73	238.30	0.61	0.53	5.45
117	11422.00	3.48	190.64	151.00	11404.52	-250.06	250.06 S	S	391.98	V	464.95	237.47	0.00	0.00	0.00

	STATE OF UTAH			FORM				
		5.LEASE DESIGNATION AND SERIAL NUMBER						
DIVISION OF OIL, GAS, AND MINING  Fee								
SUNDR	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:						
1. TYPE OF WELL Oil Well		8. WELL NAME and NUMBER: Matern Trust 4-21C4						
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY,	L.P.			9. API NUMBER: 43013528410000				
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston,	TX, 77002 713 997		DNE NUMBER: Ext	9. FIELD and POOL or WILDCAT: ALTAMONT				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1707 FSL 1907 FWL				COUNTY: DUCHESNE				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	HIP, RANGE, MERIDIAN: 21 Township: 03.0S Range: 04.0W Me	eridian	: U	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA				
TYPE OF SUBMISSION			TYPE OF ACTION					
	ACIDIZE		ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME				
4/3/2016	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT	DEEPEN		FRACTURE TREAT	NEW CONSTRUCTION				
Date of Work Completion:	OPERATOR CHANGE		PLUG AND ABANDON	PLUG BACK				
	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	✓ RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	TUBING REPAIR		VENT OR FLARE	WATER DISPOSAL				
DRILLING REPORT	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION				
Report Date:	WILDCAT WELL DETERMINATION		OTHER	OTHER:				
40 DECORIDE PROPOSED OR			orinent detelle includion detect	landle values at				
	completed operations. Clearly show direcompletion procedure a wellbore diagrams.							
				Date:				
				By: Dod K Quit				
NAME (PLEASE PRINT) Linda Renken	<b>PHONE NUN</b> 713 997-5138	IBER	TITLE Regulatory Analyst					
SIGNATURE N/A			DATE 3/24/2016					

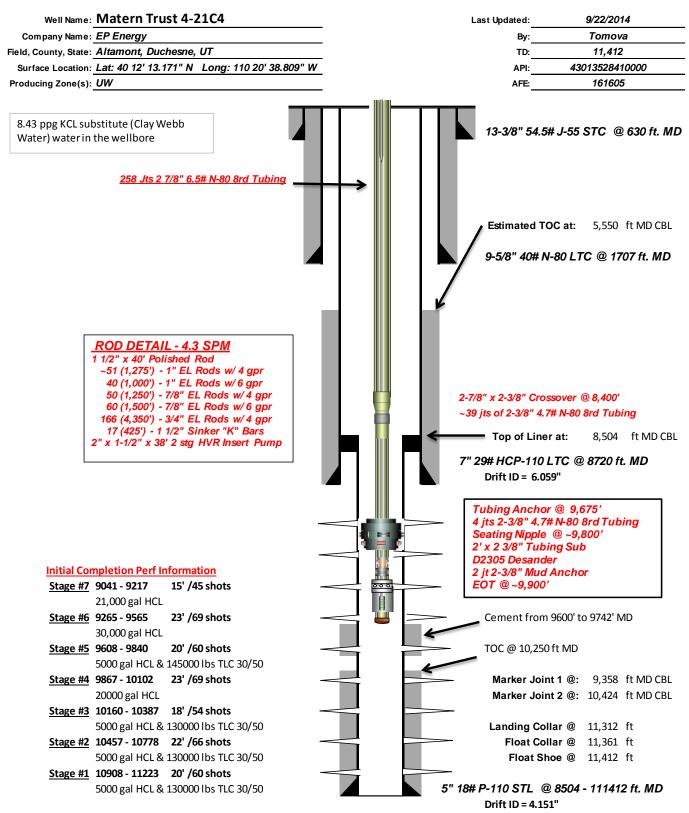
## Matern Trust 4-21 C4Recom Summary Procedure

- POOH with rods, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Set 15k CBP for 5" 18# casing @ 8,755' w/ 15' cement dump bailed on plug. Test casing to frac pressure.
- Perforate cmt squeeze holes @ 8,715'. Set 5" CMT retainer @ 8,711'. Squeeze 25 sx cmt to isolate liner lap.
- Stage 1:
  - Perforate new UW/LGR interval from 8,588' 8,690'.
  - o Acid Frac Perforations with **12,000** gals 15% HCl acid (Stage 1 Recom).
- Stage 2:
  - o RIH with 5" CBP & set @ **8,535'**.
  - o Perforate new LGR interval from 8,464' 8,484'.
  - Acid Frac Perforations with 5,000 gals 15% HCl acid (Stage 2 Recom).
- Stage 3:
  - o RIH with 7" CBP & set @ 8,125'.
  - o Perforate new LGR interval from 8,022' 8,110'.
  - o Acid Frac Perforations with **12,000** gals 15% HCl acid (Stage 3 Recom).
- Stage 4:
  - o RIH w/ 7" CBP & set @ **7,867'**.
  - o Perforate new LGR interval from 7,647' 7,852'.
  - o Prop Frac perforations with with **115,000** lbs 30/50 prop (w/ **6,000** lbs 100 mesh & **9,000** gals 15% HCl acid) (Stage 4 Recom).
- Clean out well drilling up (2) 7" CBPs and (1) 5" CBP, leaving 5" 15k CBP @ 8,755' w/ 15' CMT. Top perf BELOW plugs @ 9,041'.
- RIH w/ production tubing and rods.
- Clean location and resume production.

#### **Current WBS**



#### **Current Pumping Wellbore Schematic**

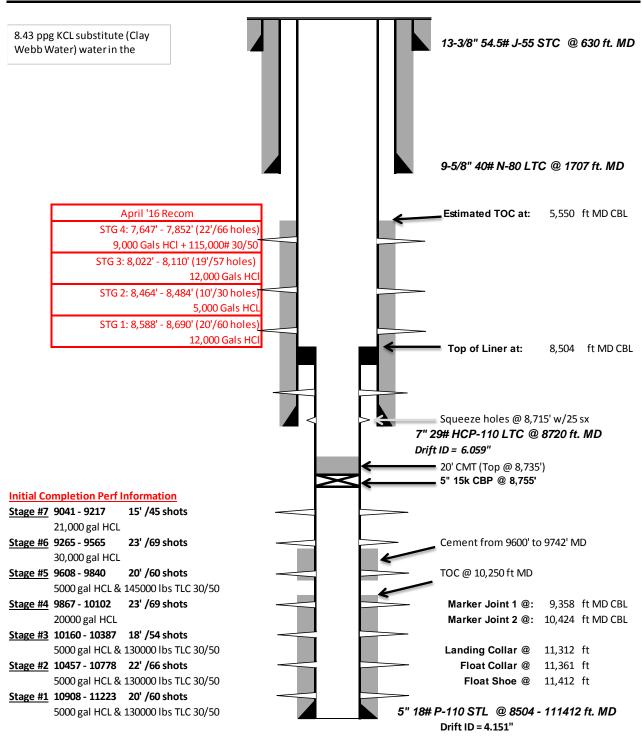


#### **Proposed WBS**



#### **Proposed Wellbore Schematic**

Matern Trust 4-21C4 3/24/2016 Well Name: Last Updated: EP Energy Fondren Company Name: By: Altamont, Duchesne, UT 11,412 Field, County, State: TD: Lat: 40 12' 13.171" N Long: 110 20' 38.809" W 43013528410000 Surface Location: API: UW Producing Zone(s): AFE:



	STATE OF UTAH		FORM 9				
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: Fee				
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:				
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Matern Trust 4-21C4				
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY,	L.P.		9. API NUMBER: 43013528410000				
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston,		DNE NUMBER: Ext	9. FIELD and POOL or WILDCAT: ALTAMONT				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1707 FSL 1907 FWL			COUNTY: DUCHESNE				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	IIP, RANGE, MERIDIAN: 21 Township: 03.0S Range: 04.0W Meridian	: U	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
/	ACIDIZE	ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start: 9/12/2016	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
9/12/2016	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION				
Date of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK				
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL				
☐ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION				
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER: Drill Out 2 Plugs				
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pe	ertinent details including dates, d	,				
	ed the proposed procedure alor	_	Approved by the				
	post WBD's.		Useptember 08, f2016 Oil, Gas and Mining				
			_				
			Date:				
			By: Ust Lunt				
NAME (PLEASE PRINT) Linda Renken	<b>PHONE NUMBER</b> 713 997-5138	TITLE Sr. Regulatory Analyst					
SIGNATURE N/A		<b>DATE</b> 9/6/2016					

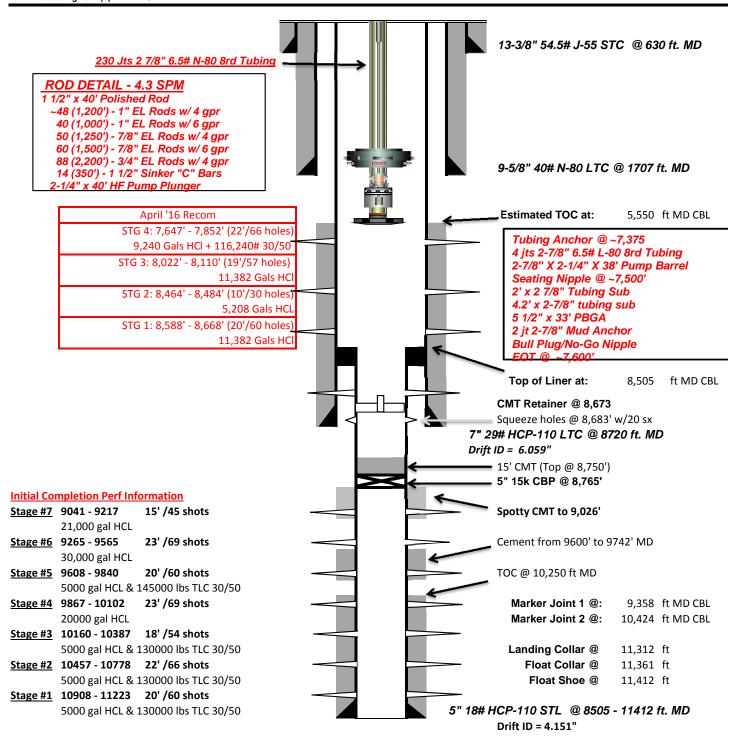
# Matern Trust 4-21 C4 Drillout Summary Procedure

- POOH with rods, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Pick up rock bit, TIH and drill up (1) 5" CMT Retainer @ 8,673' and (1) 5" CBP @ 8,765' w 15' cmt. Note top perf BELOW plug is @ 9,041'. Continue cleaning out well to PBTD @ 11,312'.
- Pull out of hole with work string and rock bit.
- RIH w/ production tubing and rods according to WBD.
- Clean location and resume production.



#### **Current RECOM Artificial Lift Wellbore Schematic**

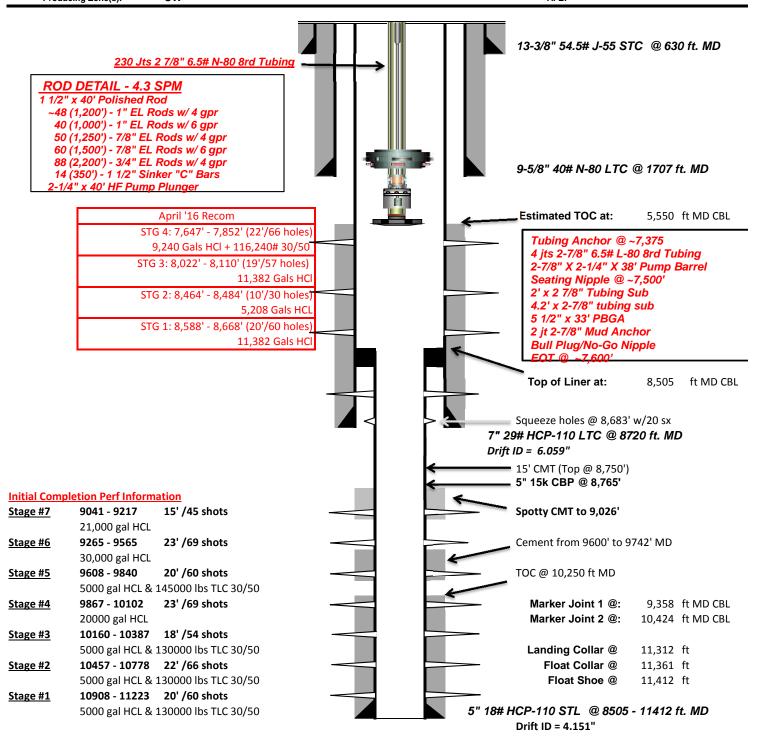
Matern Trust 4-21C4 3/29/2016 Well Name: Last Updated: EP Energy Fondren/Tomova Company Name: By: Field, County, State: Altamont, Duchesne, UT 11,412 TD: Lat: 40 12' 13.171" N Long: 110 20' 38.809" W 43013528410000 **Surface Location:** API: Producing Zone(s): AFF:





#### **Proposed RECOM DO Artificial Lift Wellbore Schematic**

Matern Trust 4-21C4 3/29/2016 Well Name: Last Updated: EP Energy Fondren/Tomova Company Name: Ву: Altamont, Duchesne, UT 11,412 Field, County, State: TD: Lat: 40 12' 13.171" N Long: 110 20' 38.809" W 43013528410000 Surface Location: API: UW Producing Zone(s): AFF:



			DEPA		TATE (			URCES	3				ENDED I	REPORT  anges)	FORM 8
DIVISION OF OIL, GAS AND MINING										_ `	5. LEASE DESIGNATION AND SERIAL NUMBER:				
WELI	L CON	/IPLE	TION	OR I	RECC	MPL	ETIC	N RI	EPOR <sup>-</sup>	ΓANI	D LOG	6. II	F INDIAN, A	LLOTTEE OR TRIE	BE NAME
1a. TYPE OF WELL:	:	(	OIL C		GAS C		DRY		OTHER	R		7. L	INIT or CA A	AGREEMENT NAM	E
b. TYPE OF WORK	(: HORIZ. LATS.	7	DEEP-	7	RE- ENTRY	7	DIFF.   RESVR.		OTHE	,		8. V	VELL NAME	and NUMBER:	
2. NAME OF OPERA					LIVIICI L		REOVI.		OTTL	<u> </u>		9. A	PI NUMBER	₹:	
3. ADDRESS OF OP	PERATOR:		OITV			07475		710		PHONE	NUMBER:	10 F	TELD AND F	POOL, OR WILDCA	AT
4. LOCATION OF WI	ELL (FOOT		CITY			STATE		ZIP		1		11.	QTR/QTR, S MERIDIAN:	SECTION, TOWNS	HIP, RANGE,
AT TOP PRODUC	CING INTER	RVAL REPO	ORTED BE	ELOW:								1	U.S.B.	& M.	
AT TOTAL DEPTI	H:											12.	COUNTY	1	3. STATE UTAH
14. DATE SPUDDED	D:	15. DATE	T.D. REA	CHED:	16. DATI	E COMPL	ETED:	,	ABANDONE		READY TO PRODU	CE	17. ELEV	ATIONS (DF, RKB,	RT, GL):
18. TOTAL DEPTH:	MD TVD			19. PLUG	BACK T.E	D.: MD TVD			20. IF MU	LTIPLE C	OMPLETIONS, HOW	MANY? *	21. DEPTI PLU	H BRIDGE MD G SET: TVD	
22. TYPE ELECTRIC	C AND OTHI	ER MECHA	NICAL LC	OGS RUN (	Submit cop	oy of each	)			WAS DST	L CORED? RUN? DNAL SURVEY?	NO NO	☐ YE	S (Subn	nit analysis) nit report) nit copy)
24. CASING AND LI	NER RECO	RD (Repor	t all string	gs set in w	rell)				ı		1				Г
HOLE SIZE	SIZE/GF	RADE	WEIGH	T (#/ft.)	TOP (MD) BOTTOM				CEMENT TYPE & NO. OF SACKS		RRY IE (BBL)	CEMENT TOP **	AMOUNT PULLED		
25. TUBING RECOR	RD.										1				
SIZE	DEPTH	SET (MD)	PACI	KER SET (	MD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)	SIZE	DE	PTH SET (MD)	PACKER SET (MD)
26. PRODUCING IN	TERVALS							<u> </u>	2	7. PERFO	RATION RECORD		<u> </u>		
FORMATION	NAME	TO	P (MD)	BOTTO	OM (MD)	TOP	(TVD)	вотто	M (TVD)	INTERVA	AL (Top/Bot - MD)	SIZE	NO. HOLE	S PERFOR	ATION STATUS
(A)														Open	Squeezed
(B)														Open	Squeezed
(C)														Open	Squeezed
(D)														Open	Squeezed
28. ACID, FRACTUR	RE, TREATM	MENT, CEN	MENT SQL	JEEZE, ET	C.				<b>_</b>						<u> </u>
DEPTH I	NTERVAL								AMOL	INT AND T	TYPE OF MATERIAL				
			-												
			+												
29. ENCLOSED ATT	TACHMENT	S:												30. WEL	STATUS:
$\equiv$	RICAL/MEC			O CEMENT	Γ VERIFIC <i>i</i>	ATION	$\equiv$	GEOLOG CORE AN	IC REPORT	$\equiv$	DST REPORT OTHER:	DIREC	CTIONAL SU	IRVEY	

(CONTINUED ON BACK)

(5/2000)

31. INITIAL PRO	DDUCTION				INT	ERVAL A (As sho	wn in item #26)						
DATE FIRST PRODUCED:		TEST DAT	TE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL –	BBL:	GAS - MCF:	WATER	– BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL –	BBL:	GAS - MCF:	WATER	– BBL:	INTERVAL STATUS:
			•		INT	ERVAL B (As sho	wn in item #26)			-	•		
DATE FIRST PR	ODUCED:	TEST DAT	TE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL -	BBL:	GAS – MCF:	WATER	– BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	ESS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL –	BBL:	GAS – MCF:	WATER	– BBL:	INTERVAL STATUS:
					INT	ERVAL C (As sho	wn in item #26)						
DATE FIRST PRODUCED:		TEST DAT	TE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL –	BBL:	GAS - MCF:	WATER	– BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL –	BBL:	GAS – MCF:	WATER	– BBL:	INTERVAL STATUS:
					INT	ERVAL D (As sho	wn in item #26)						
DATE FIRST PR	ODUCED:	TEST DAT	TE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL -	BBL:	GAS - MCF:	WATER	R – BBL: PROD. METHOD:	
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	ESS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL-	BBL:	GAS - MCF:	WATER	– BBL:	INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (Solo	d, Used for Fi	uel, Vented, Etc	:.)							-		
33. SUMMARY	OF POROUS ZO	NES (Include	Aquifers):				3	34. FOR	MATION (	(Log) MARKER:	S:		
Show all importa tested, cushion u						n tests, including de	epth interval						
Formatio	on	Top (MD)	Bottom (MD)		Descrip	tions, Contents, etc	<b>.</b> .	Name Top (Measured Dep				Top Measured Depth)	
35. ADDITIONA	L REMARKS (In	clude pluggii	ng procedure)	•									
36. I hereby cer	tify that the fore	egoing and at	ttached informa	ation is c	omplete and corre	ect as determined	from all available rec	ords.					
NAME (PLEASE PRINT)							TITLE						
SIGNATURE							DATE						

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

<sup>\*</sup> ITEM 20: Show the number of completions if production is measured separately from two or more formations.

## **Attachment to Well Completion Report**

	Form 8 Dated:	-
Well Name	:	

## Items #27 and #28 Continued

## 27. Perforation Record

Interval (Top/Bottom-MD)	Hole Size	No. of Holes	Perf. Status

## 28. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material

## **CENTRAL DIVISION**

ALTAMONT FIELD

MATERN TRUST 4-21C4

MATERN TRUST 4-21C4

RECOMPLETE LAND

# **Operation Summary Report**

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner (s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

**CENTRAL DIVISION** 

#### 1 General

#### **Customer Information** 1.1

Company	CENTRAL DIVISION
Representative	
Address	

#### 1.2 **Well Information**

Well	MATERN TRUST 4-21C4								
Project	ALTAMONT FIELD	Site	MATERN TRUST 4-21C4						
Rig Name/No.		Event	RECOMPLETE LAND						
Start date	4/1/2016	End date	4/21/2016						
Spud Date/Time	4/24/2014	UWI	MATERN TRUST 4-21C4						
Active datum	KB @5,879.3usft (above Mean Sea Level)	<u>.</u>							
Afe	166594/56459 / MATERN TRUST 4-21C4								
No./Description									

#### 2 Summary

#### **Operation Summary** 2.1

Date	1	Гіте	Duration	Phase	Activit	Sub	OP	MD from	Operation
		rt-End	(hr)		y Code		Code	(usft)	
4/2/2016	9:30	13:00	3.50	MIRU	01		Р	, ,	MOVE RIG TO LOCATION. SERVICE RIG. SLIDE UNIT & RURIG
	13:00	15:00	2.00	WOR	18		Р		ATTEMPT TO WORK PUMP OFF SEAT WHILE PUMPING 200 BBLS 2% KCL WTR DOWN CSG
	15:00	18:00	3.00	WOR	39		Р		BACK OFF ROD STRING.TOOH W/ 88 1" RODS, 109 7/8" RODS & 136 3/4" RODS LAYING DOWN 48 3/4" RODS AS PER NEW ROD STAR. 38 3/4" RODS, 17 WEIGHT RODS & PUMP IN HOLE. SDFN
4/3/2016	6:00	6:00	24.00	WOR	18		Р		NO ACTIVETY TODAY. SHUT DOWN FOR WEEKEND
4/4/2016	6:00	6:00	24.00	WOR	18		Р		NO ACTIVETY TODAY. SHUT DOWN FOR WEEKEND
4/5/2016		7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON WIRELINE SAFETY. FILL OUT & REVIEW JSA
	7:00	8:30	1.50	WLWORK	21		Р		RU WIRELINE UNIT. RIH & PERF TBG @ 8370'. POOH W/ TBG PUNCHER & RD WIRELINE UNIT
	8:30	9:30	1.00	WOR	16		Р		ND WELL HEAD. INSTALL TBG HANGER & PUP JT. RE LAND TBG. NU BOP & TEST TO 5000 PSI
	9:30	15:30	6.00	WOR	39		P		RELEASE TAC. RU SCANNERS TOOH W/ 258 JTS 2-7/8"EUE TBG. SCAN RESULTS 254 JTS YELLOW BAND TBG, 2 JTS BLUE BAND TBG & 2 JTS RED BAND TBG. RD TBG SCANNERS. STRIP OUT OF HOLE W/ REMAINING 2-3/8" EUE TBG, 3/4" RODS, WEIGHT RODS, PUMP, TAC & BHA.
	15:30	19:30	4.00	WLWORK	27		Р		RIH W/ 4" OD GUAGE RING TO 8770'. RIH & SET MAGNUM 15K CBP @ 8765'. DUMP BAIL 15' CMT ON CBP. RD WIRELINE UNIT. SDFN
4/6/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON NIPPLING UP FRAC VALVE. FILL OUT & REVIEW JSA
	7:00	10:00	3.00	WOR	16		Р		ND BOP. NU FRAC VALVE. NU BOP. TEST FRAC VALVE TO 10000 PSI. TEST BOP TO 4800 PSI. FILL CSG W/ 95 BBLS 2% KCL WTR. PRESSURE TEST CSG TO 8000 PSI FOR 15 MINUTES. TESTED GOOD. RD TESTERS.
	10:00	16:00	6.00	WLWORK	27		Р		RU WIRELINE UNIT. RIH W/ 6" OD GUAGE RING TO LINER TOP @ 8505'. POOH. RIH & PERFORATE 5" CSG FROM 8683' TO 8684' 6 JSPF, WHILE HOLDING 1000 PSI ON CSG. PRESSURE SLOWLY DROPPED TO 0 PSI. ESTABLISH INJECTION RATE OF 2700 PSI @ 1 BPM. RIH & SET CICR @ 8673'. RD WIRELINE UNIT.
	16:00	19:00	3.00	WOR	39		Р		RU HYDROTESTER. RIH W/ STINGER, 7 JTS 2-3/8"EUE TBG, X-OVER, 2-7/8"SEAT NIPPLE & 72 JTS 2-7/8"EUE TBG, TESTING ALL 2-7/8"EUE TBG TO 8500 PSI. SDFN

**CENTRAL DIVISION** 

Date	1	Гіте	Duration	Phase	Activit	Sub	ОР	MD from	Operation
	Sta	rt-End	(hr)		y Code		Code	(usft)	
4/7/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON HYDROTESTING TBG. FILL OUT & REVIEW JSA
	7:00	12:00	5.00	WOR	39		Р		TIH W/ 182 JTS 2-7/8"EUE TBG, HYDROTESTING TO 8500 PSI. RD HYDROTESTER. PU 5 JTS INSPECTED 2-7/8"EUE
	12:00	16:00	4.00	WOR	18		Р		TBG. STING INTO CICR @ 8673'.  RU HALIBURTON CMT EQUIPMENT. ESTABLISH INJECTION RATE OF 1 BPM &@ 3285 PSI. UNSTING FROM RETAINER PUMP 1 BBL FRESH WTR, 10 BBLS SUPERFLUSH 101 & 1 BBL FRESH WTR & SPOT 1 BBL FROM END OF TBG WHILE
								HOLDING 700 PSI ON ANNULUS. STING INTO RETAINER. PUMP SUPERFLUSH 101 & 1 BBL FRESH WTR INTO RETAINERFINAL PRESSURE 4872 PSI. STING OUT OF RETAINER. REVERSE CIRCULATE 2 TBG VOLUMES TO ENSURE THERE IS NO REACTIVE SPACER IN TBG. MIX &	
									PUMP 40 SX (8 BBLS) 15.8 PPG 1.15 YIELD CMT. PUMP 5 BBLS FRESH WTR, 8 BBLS CMT & 5 BBLS FRESH WTR. DISPLACE CMT 2 BBLS FROM END OF TBG. STING INTO RETAINER. PUMP 2 BBLS FRESH WTR & 4 BBLS CMT INTO RETAINER. FINAL PRESSURE 3054 PSI. STING OUT OF RETAINER. REVERSE CIRCULATE 2 TBG VOLUMES, RECOVERING 4 BBLS CMT AFTER PUMPING TBG VOLUME. RD HALIBURTON.
	16:00	18:00	2.00	WOR	39		Р		TOOH W/ 160 JTS 2-7/8"EUE TBG. SDFN
4/8/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON TRIPPING TBG. FILL OUT & REVIEW JSA
	7:00	8:00	1.00	WOR	39		Р		TOOH W/ 98 JTS 2-7/8"EUE TBG, SEAT NIPPLE, X-OVER, 7 JTS 2-3/8"EUE TBG & STINGER.
	8:00	13:00	5.00	WOR	16		Р		RD WORK FLOOR. PRESSURE TEST CSG TO 6000 PSI FOR 15 MINUTES. ND BOP. NU & TEST FRAC STACK.
	13:00	15:30	2.50	STG01	21		Р		RU WIRELINE UNIT. RIH & PERF STG 1 PERFORATIONS FROM 8588' TO 8668' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASING, WHILE HOLDING 1000 PSI ON CSG. PRESSURE DID NOT CHANGE WHILE PERFORATING. SDFN
4/9/2016	6:00	6:00	24.00	STG01	18		Р		NO ACTIVETY TODAY. WAITING ON FRAC EQUIPMENT
4/10/2016	6:00	6:00	24.00	STG01	18		Р		HEAT FRAC WTR & RU FRAC EQUIPMENT
4/11/2016	6:00	6:00	24.00	STG01	18 28		P P		FINISH RIGGING UP FRAC EQUIPMENT. MIX ACID
4/12/2016	6:00	8:00	2.00	STG01					TRAVEL TO LOCATION. HOLD SAFETY MEETING ON FRAC SAFETY. FILL OUT & REVIEW JSA'S
	8:00	10:00	2.00	STG01	35		Р		PRESSURE TEST LINES TO 9630 PSI. BREAK DOWN STG 1 PERFORATIONS @ 4215 PSI PUMPING 6.1 BPM. PUMP 107BBLS THEN PERFORM STEP DOWN TEST. ISIP 2832 PSI. FG .762. 5 MIN 2610 PSI. 10 MIN 2512 PSI. 15 MIN 2471 PSI. TREAT STAGE 2 PERFORATIONS W/ 11382 GALLONS 15% HCL ACID USING 55 BAL SEALERS DROPPING 11 BALLS EVERY 2000 GALLONS BEGINNING AT 2000 GALLONS, FLUSHING TO BOTTOM PERF + 10 BBLS. SAW FAIR DIVERSION. MAX PSI 7815 PSI. MAX RATE 53.25 BPM. AVG PSI 5475 PSI. AVG RATE 43.9 BPM 2900 PSI. FINAL FG .769. 5 MIN 2671 PSI. 10 MIN 2615. TURN WELL OVER TO
	10:00	11:30	1.50	STG02	21		Р		WIRELINE. 717 BBLS FLUID TO RECOVER RIH & SET CBP @ 8535'.PERFORATE STG 2 PERFORATIONS FROM 8464' TO 8484' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASINGPRESSURE DROPPED FROM 2400 PSI TO 2000 PSI WHILE PERFORATING.

Date		ime	Duration	Phase	Activit	Sub	ОР	MD from	Operation
		rt-End	(hr)	07000	y Code		Code	(usft)	PRESCUENT TEST IN TO STOLED IN PRESCUENT OF STOLED
	11:30	12:15	0.75	STG02	35		Р		PRESSURE TEST LINES TO 9584 PSI. BREAK DOWN STG 2 PERFORATIONS @ 2838 PSI PUMPING 5.8 BPM. PERFORM STEP DOWN TEST. ISIP 2543 PSI. FG .734. 5 MIN 2428 PSI. 10 MIN 2412 PSI. 15 MIN 2402 PSI. TREAT STAGE 2 PERFORATIONS W/ 5208 GALLONS 15% HCL
									ACID USING 55 BAL SEALERS DROPPING 11 BALLS EVERY 1250 GALLONS BEGINNING AT 1250 GALLONS, FLUSHING TO BOTTOM PERF + 10 BBLS. SAW FAIR DIVERSION. MAX PSI 7766 PSI. MAX RATE 54.44 BPM. AVG PSI 3922 PSI. AVG RATE 4680 BPM. ISIP 2611 PSI. FINAL FG .68. 5 MIN 2450 PSI. 10 MIN 2384. TURN WELL OVER TO WIRELINE. 526
	12:15	14:00	1.75	STG03	21		Р		BBLS FLUID TO RECOVER  RIH & SET CBP @ 8128'.PERFORATE STG 3
		55		0.000			·		PERFORATIONS FROM 8022' TO 8110' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASING.
	14:00	15:00	1.00	STG03	39		Р		PRESSURE TEST LINES TO 9536 PSI. BREAK DOWN STG 3 PERFORATIONS @ 1351 PSI PUMPING 5 BPM. PERFORM STEP DOWN TEST. ISIP 1533 PSI. FG .62. 5 MIN 1020 PSI. 10 MIN 912 PSI. 15 MIN 830 PSI. TREAT STAGE 3 PERFORATIONS W/ 11382 GALLONS 15% HCL ACID USING 70 BIO BALL SEALERS DROPPING 14 BALLS EVERY 2000 GALLONS BEGINNING AT 2000 GALLONS, FLUSHING TO
									BOTTOM PERF + 10 BBLS. MAX PSI 5501 PSI. MAX RATE 55.83 BPM. AVG PSI 3047 PSI. AVG RATE 51.09 BPM. ISIP 1748 PSI. FINAL FG .65. 5 MIN 1345 PSI. 10 MIN 1161. TURN WELL OVER TO WIRELINE. 674 BBLS FLUID TO RECOVER
	15:00	17:30	2.50	STG04	21		Р		RIH & SET CBP @ 7867'.PERFORATE STG 4 PERFORATIONS FROM 7647' TO 7852' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASING. PERF GUN MISFIRED AFTER SHOOTING 7797' TO 7798'. POOH W/ PERF GUN. WIRE HAD BROKEN OFF DETONATOR. REPAIR PERF GUN. RIH & FINISH SHOOTING STAGE 4
	17:30	19:00	1.50	STG04	39		P		PRESSURE TEST LINES TO 9680 PSI. SICP 265 PSI. BREAK DOWN STAGE 4 PERFS @ 1608 PSI, 5.8 BPM. TREATED PERFS W/ 9240 GALS 15% HCL ACIDFLUSHING TO BOTTOM PERF + 10 BBLS. I.S.I.P 1683 PSI F.G65. 5 MINUTE 1561 PSI, 10 MINUTE 1472 PSI, 15 MINUTE1394 PSI. PUMPED 6740 LBS 100 MESH SAND IN 1/2 PPG STAGE AND 116240 LBS 30 / 50 WHITE SAND IN 1/2 PPG, 1PPG, 1.5 PPG, 2PPG & 3PPG STAGES. AVG RATE 74.5 BPM, MAX RATE 75.48 BPM. AVG PRESS 2460_ PSI, MAX PRESS 2938 PSI. I.S.I.P. 1931 PSI F.G681. 5 MIN 1676 PSI. 10 MIN 1598 PSI. SHUT WELL IN. 3539 BBLS TO RECOVER TURNED WELL OVER TO WIRELINE.
	19:00	22:00	3.00	RDMO	18		Р		RD WIRELINE & PUMP LINES FROM GOAT HEAD.
	22:00	6:00	8.00	FB	19		Р		OPEN WELL TO FLOW BACK TANK ON A 12/64" CHOKE @ 1000 PSI. REWCOVERED 235 BBLS OIL. CSG PRESSURE @ REPORT TIME 550 PSI
4/13/2016	6:00	7:00	1.00	FB	28		Р		HOLD SAFETY MEETING ON NIPPLING DOWN FRAC STACK. FILL OUT & REVIEW JSA
	7:00	11:00	4.00	FB	18		Р		ND FRAC STACK TO BOTTOM HCR VALVE. NIPPLE UP FLOW LINE TO TREATER SIDE CSG VALVE. RUN PUMP LINES. RIG DOWN FRAC EQUIPMENT. WHILE FLOWING WELL
	11:00	6:00	19.00	FB	19		Р		CONTINUE FLOWING WELL
4/14/2016	6:00	6:30	0.50	FB	28		Р		HOLD SAFETY MEETING ON FLOW BACK OPERATIONS.FILL OUT & REVIEW JSA
	6:30	6:00	23.50	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY. RECOVERED 163 BBLS OIL, 518 BBLS WTR, GAS FLAIRING, FLOWING @ 80 PSI ON A 48/64" CHOKE
4/15/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON KILLING WELL. FILL OUT & REVIEW JSA

Date		Γime ırt-End	Duration (hr)	Phase	Activit y Code	Sub	OP Code	MD from (usft)	Operation
	7:00	8:00	1.00	WOR	18		P	(30.4)	OPEN WELL TO FLOW BACK TANK. BLEED PRESSURE FROM 100 PSI TO 20 PSI
	8:00	9:30	1.50	WOR	15		Р		KILL WELL W/ 1000 BBLS 10 PPG BRINE WTR.
	9:30	12:00	2.50	WOR	16		Р		ND HCR VALVE. NU & TEST BOP.
	12:00	13:00	1.00	WOR	15		Р		KILL WELL W/ 75 BBLS 10 PPG BRINE WTR
	13:00	16:00	3.00	WOR	39		Р		TIH W/ 6" BIT, BIT SUB & 240 JTS 2-7/8"EUE TBG, KILLING TBG AS NEEDED WHILE FLOWING CSG TO FLOWBACK TANK
	16:00	18:30	2.50	WOR	18		Р		RU POWER SWIVEL. BREAK REVERSE CIRCULATION. CLEAN OUT 15' SAND & DRILL 7" CBP SET @ 7867'. CIRCULATE TBG CLEAN. KILL TBG W/ 20 BBLS 10 PPG BRINE WTR. RD POWER SWIVEL. TOOH W/ 14 JTS 2-7/8" EUE TBG. SDFN W/ EOT @ 7573'.
4/16/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON CIRCULATING WELL. FILL OUT & REVIEW JSA
	7:00	8:30	1.50	WOR	06		Р		SITP 100 PSI. SICP 200 PSI. REVERSE CIRCULATE OIL & GAS FROM WELL BORE. KILL TBG W/ 20 BBLS 10 PPG BRINE WTR DOWN TBG.
	8:30	9:30	1.00	WOR	39		Р		TIH & TAG UP @ 8060'. RU POWER SWIVEL & BREAK REVERSE CIRCULATION.
	9:30	16:00	6.50	WOR	10		Р		DRILL CBP REMAINS & CLEAN OUT SAND TO CBP SET @ 8128'. DRILL CBP. CIRCULATE CLEAN. TIH TO LINER TOP @ 8505'. FINISH DRILLING CBP ON LINER TOP. CIRCULATE CLEAN. KILL TBG W/ 30 BBLS 2% KCL WTR
	16:00	16:30	0.50	WOR	39		Р		TOOH W/ 30 JTS 2-7/8"EUETBG. SDFN
4/17/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON KILLING WELL. FILL OUT & REVIEW JSA
	7:00	9:30	2.50	WOR	15		Р		SITP 300 PSI. SICP 125 PSI. REVERSE CIRCULATE WELL W/ 275 BBLS 10 PPG BRINE WTR.
	9:30	17:30	8.00	WOR	39		Р		TOOH W/ TBG & 6" BIT. TIH W/ 4-1/8" OD BIT, BIT SUB, 7 JTS 2-3/8"EUE TBG, X-OVER & 255 JTS 2-7/8"EUE TBG. RU POWER SWIVEL & BREAK REVERSE CIRCULATION. CLEAN 3' OF SAND OFF CBP SET @ 8535'. DRILL CBP SET @ 8535'. CIRCULATE CLEAN. KILL TBG. CHASE CBP REMAINS TO CMT RETAINER SET & 8673'. TOOH W/ 36 JTS 2-7/8"EUE TBG.
	17:30	18:00	0.50	WOR	18		Р		RU FLOW LINE TO TBG.
	18:00	6:00	12.00	WOR	19		Р		FLOW WELL TO FLOW BACK TANK ON A 26/64" CHOKE. RECOVERED 420 BBLS FLUID W/ 575 PSI ON CSG & TBG FLOWING 40 BBLS PER HOUR @ 200 PSI
4/18/2016	6:00	6:30	0.50	FB	28		Р		HOLD SAFETY MEETING ON FLOW BACK OPERATIONS. FILL OUT & REVIEW JSA
	6:30	6:00	23.50	FB	19		Р		FLOW WELL. RECOVERED 789 BBLS OIL (298 BBLS TRANSFERED FROM FLOW BACK TANKS) & 837 BBLS WTR W/ GAS FLARING. PRESSURE @ REPORT TIME CSG PSI 1075 PSI. TBG PSI 450 PSI FLOWING ON A 26/64" CHOKE
4/19/2016	6:00	6:30	0.50	FB	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON FLOW BACK OPERATIONS. FILL OUT & REVIEW JSA
	6:30	6:00	23.50	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY. RECOVERED 861 BBLS OIL (140 BBLS FROM SWD TANK, 480 BBLS WTR W/ GAS FLAIRING.CSG PRESSURE @ REPORT TIME 1175 PSI. TBG PRESSURE 350 PSI ON A 28/64" CHOKE
4/20/2016	6:00	7:00	1.00	WOR	28	TRAV EL TO LOCA TION.	Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON KILLING WELL. FILL OUT & REVIEW JSA
	7:00	10:00	3.00	WOR	15		Р		SICP 1175 PSI. FLOWING TBG PRESSURE 300 PSI. OPEN CSG TO FLOW BACK TANK & BLEED PRESSURE TO 300 PSI. REVERSE CIRCULATE WELL W/ 275 BBLS 10 PPG BRINE WTR. PUMP 50 BBLS 10 PPG BRINE WTR DOWN TBG. WELL WAS DEAD

**CENTRAL DIVISION** 

Date	1	Гіте	Duration	Phase	Activit	Sub	OP	MD from	Operation
	Sta	rt-End	(hr)		y Code		Code	(usft)	
	10:00	12:30	2.50	WOR	39		Р		TIH & TAG CMT RETAINER @ 8673'. LD 29 JTS 2-7/8"EUE TBG. TOOH W/ 232 JTS 2-7/8"EUE TBG, X-OVER, 7 JTS 2-3/8"EUE TBG, BIT SUB & BIT
	12:30	16:00	3.50	WOR	18		Р		RU WIRELINE UNIT. RIH W/ 6" OD GUAGE RING TO 7650'. RIH W/ KLX 7" PKR & SET @ 7610' ( CSG COLLAR @ 7600'). RD WIRE LINE UNIT
	16:00	18:30	2.50	WOR	39		Р		TIH W/ ON/OFF TOOL, 1 JT 2-7/8"EUE TBG, 2-7/8" SEAT NIPPLE (2.28" ID) & 230 JTS 2-7/8"EUE TBG. ENGUAGE PKR. PU 25 K OVER STRING WEIGHT. RELEASE ON/OFF TOOL & LD 3 JTS 2-7/8"EUE TBG. SDFN
4/21/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON BLEEDING PRESSURE OFF WELL. FILL OUT & REVIEW JSA
	7:00	9:00	2.00	WOR	18		Р		SICP 300 PSI. SITP 400 PSI. BLEED PESSURE OFF TBG & CSG. PUMP 20 BBLS 10 PPG BRINE WTR DOWN TBG.
	9:00	12:00	3.00	WOR	39		Р		TIH W/ 2-1/2" OD ROD FISHING TOOL, 89 3/4" RODS, 109 7/8" RODS & 88 1" RODS.
	12:00	13:00	1.00	WOR	06		Р		FLUSH RODS W/ 50 BLS 2% KCL WTR. KILL TBG W/ 50 BBLS BRINE WTR.
	13:00	16:00	3.00	WOR	24		Р		LD RODS & OVERSHOT
	16:00	17:30	1.50	WOR	16		Р		REVERSE CIRCULATE BRINE WTR FROM WELL BORE W/ 290 BBLS PKR FLUID. PUMP 0 BBLS 2% KCL WTR DOWN TBG
	17:30	20:00	2.50	WOR	16		Р		RIH & LATCH PKR. LAND TBG ON BREECH LOCK TBG HANGER IN 15K TENSION W/ BACK PRESSURE INSTALLED IN TBG HANGER. ND BOP & FRAC VALVE. NU & TEST WELLHEAD & FLOWLINES. PUMP OUT PLUG @ 3500 PSI. OPEN WELL TO PRODUCTION FACILITY ON A 28/64" CHOKE.
	20:00	6:00	10.00	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY
4/22/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON RIGGING DOWN RIG. FILL OUT & REVIEW JSA
	7:00	9:00	2.00	RDMO	02		Р		RD RIG & PUMP LINES. MOVE OFF LOCATION
	9:00	6:00	21.00	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY
4/29/2016	14:00	20:00	6.00	WLWORK	22		Р		MIRU WIRELINE UNIT. RIH W/ 1-11/16" SINKER BARS & TAG @ 8666'. POOH. RIH W/ PROTECHNICS PRODUCTION LOGGING TOOL. LOG INTERVAL 7500' TO 8666'. DOWN LOAD DATA. RD WIRELINE UNIT. MOVE OFF LOCATION

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: Fee
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Matern Trust 4-21C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY,	L.P.		<b>9. API NUMBER:</b> 43013528410000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston,		DNE NUMBER: Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1707 FSL 1907 FWL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	HP, RANGE, MERIDIAN: 21 Township: 03.0S Range: 04.0W Meridian	: U	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
6/14/2016	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Installed Rods
			·
	COMPLETED OPERATIONS. Clearly show all peods after recompletion. Please s		epths, volumes, etc.
ilistalieu itt	ous after recompletion. I lease s	dec attached.	Accepted by the Utah Division of
			Oil, Gas and Mining
			FOR RECORD ONLY
			October 07, 2016
		I	
Maria S. Gomez	<b>PHONE NUMBER</b> 713 997-5138	TITLE Consultant	
SIGNATURE N/A		<b>DATE</b> 10/6/2016	

## **CENTRAL DIVISION**

ALTAMONT FIELD

MATERN TRUST 4-21C4

MATERN TRUST 4-21C4

RECOMPLETE LAND

# **Operation Summary Report**

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner (s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

**CENTRAL DIVISION** 

#### 1 General

#### 1.1 **Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

#### 1.2 **Well Information**

Well	MATERN TRUST 4-21C4								
Project	ALTAMONT FIELD	Site	MATERN TRUST 4-21C4						
Rig Name/No.		Event	RECOMPLETE LAND						
Start date	4/1/2016	End date	4/21/2016						
Spud Date/Time	4/24/2014	UWI	MATERN TRUST 4-21C4						
Active datum	KB @5,879.3ft (above Mean Sea Level)	·							
Afe	166594/56459 / MATERN TRUST 4-21C4								
No./Description									

#### 2 Summary

#### **Operation Summary** 2.1

Date		Time art-End	Duration (hr)	Phase	Activit	Sub	OP Code	MD from (ft)	Operation
4/2/2016	9:30	13:00	3.50	MIRU	01		Р	(1-7)	MOVE RIG TO LOCATION. SERVICE RIG. SLIDE UNIT & RURIG
	13:00	15:00	2.00	WOR	18		Р		ATTEMPT TO WORK PUMP OFF SEAT WHILE PUMPING 200 BBLS 2% KCL WTR DOWN CSG
	15:00	18:00	3.00	WOR	39		Р		BACK OFF ROD STRING.TOOH W/ 88 1" RODS, 109 7/8" RODS & 136 3/4" RODS LAYING DOWN 48 3/4" RODS AS PER NEW ROD STAR. 38 3/4" RODS, 17 WEIGHT RODS & PUMP IN HOLE. SDFN
4/3/2016	6:00	6:00	24.00	WOR	18		Р		NO ACTIVETY TODAY. SHUT DOWN FOR WEEKEND
4/4/2016	6:00	6:00	24.00	WOR	18		Р		NO ACTIVETY TODAY. SHUT DOWN FOR WEEKEND
4/5/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON WIRELINE SAFETY. FILL OUT & REVIEW JSA
	7:00	8:30	1.50	WLWORK	21		Р		RU WIRELINE UNIT. RIH & PERF TBG @ 8370'. POOH W/ TBG PUNCHER & RD WIRELINE UNIT
	8:30	9:30	1.00	WOR	16		Р		ND WELL HEAD. INSTALL TBG HANGER & PUP JT. RE LAND TBG. NU BOP & TEST TO 5000 PSI
	9:30	15:30	6.00	WOR	39		Р		RELEASE TAC. RU SCANNERS TOOH W/ 258 JTS 2-7/8"EUE TBG. SCAN RESULTS 254 JTS YELLOW BAND TBG, 2 JTS BLUE BAND TBG & 2 JTS RED BAND TBG. RD TBG SCANNERS. STRIP OUT OF HOLE W/ REMAINING 2-3/8" EUE TBG, 3/4" RODS, WEIGHT RODS, PUMP, TAC & BHA.
	15:30	19:30	4.00	WLWORK	27		Р		RIH W/ 4" OD GUAGE RING TO 8770'. RIH & SET MAGNUM 15K CBP @ 8765'. DUMP BAIL 15' CMT ON CBP. RD WIRELINE UNIT. SDFN
4/6/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON NIPPLING UP FRAC VALVE. FILL OUT & REVIEW JSA
	7:00	10:00	3.00	WOR	16		Р		ND BOP. NU FRAC VALVE. NU BOP. TEST FRAC VALVE TO 10000 PSI. TEST BOP TO 4800 PSI. FILL CSG W/ 95 BBLS 2% KCL WTR. PRESSURE TEST CSG TO 8000 PSI FOR 15 MINUTES. TESTED GOOD. RD TESTERS.
	10:00	16:00	6.00	WLWORK	27		Р		RU WIRELINE UNIT. RIH W/ 6" OD GUAGE RING TO LINER TOP @ 8505'. POOH. RIH & PERFORATE 5" CSG FROM 8683' TO 8684' 6 JSPF, WHILE HOLDING 1000 PSI ON CSG. PRESSURE SLOWLY DROPPED TO 0 PSI. ESTABLISH INJECTION RATE OF 2700 PSI @ 1 BPM. RIH & SET CICR @ 8673'. RD WIRELINE UNIT.
	16:00	19:00	3.00	WOR	39		Р		RU HYDROTESTER. RIH W/ STINGER, 7 JTS 2-3/8"EUE TBG, X-OVER, 2-7/8"SEAT NIPPLE & 72 JTS 2-7/8"EUE TBG, TESTING ALL 2-7/8"EUE TBG TO 8500 PSI. SDFN

**CENTRAL DIVISION** 

Date	1	Гіте	Duration	Phase	Activit	Sub	OP	MD from	Operation
	Sta	rt-End	(hr)		y Code		Code	(ft)	
4/7/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON HYDROTESTING TBG. FILL OUT & REVIEW JSA
	7:00	12:00	5.00	WOR	39		Р		TIH W/ 182 JTS 2-7/8"EUE TBG, HYDROTESTING TO 8500 PSI. RD HYDROTESTER. PU 5 JTS INSPECTED 2-7/8"EUE
	12:00	16:00	4.00	WOR	18		P		TBG. STING INTO CICR @ 8673'.  RU HALIBURTON CMT EQUIPMENT. ESTABLISH INJECTION RATE OF 1 BPM &@ 3285 PSI. UNSTING FROM RETAINER  PUMP 1 BBL FRESH WTR, 10 BBLS SUPERFLUSH 101 & 1 BBL FRESH WTR & SPOT 1 BBL FROM END OF TBG WHILE HOLDING 700 PSI ON ANNULUS. STING INTO RETAINER.  PUMP SUPERFLUSH 101 & 1 BBL FRESH WTR INTO RETAINER INTO RETAINER PESSURE 4872 PSI. STING OUT OF RETAINER. REVERSE CIRCULATE 2 TBG VOLUMES TO ENSURE THERE IS NO REACTIVE SPACER IN TBG. MIX & PUMP 40 SX (8 BBLS) 15.8 PPG 1.15 YIELD CMT. PUMP 5 BBLS FRESH WTR, 8 BBLS CMT & 5 BBLS FRESH WTR.  DISPLACE CMT 2 BBLS FROM END OF TBG. STING INTO RETAINER. PUMP 2 BBLS FRESH WTR & 4 BBLS CMT INTO RETAINER. FINAL PRESSURE 3054 PSI. STING OUT OF
									RETAINER. REVERSE CIRCULATE 2 TBG VOLUMES, RECOVERING 4 BBLS CMT AFTER PUMPING TBG VOLUME. RD HALIBURTON.
	16:00	18:00	2.00	WOR	39		Р		TOOH W/ 160 JTS 2-7/8"EUE TBG. SDFN
4/8/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON TRIPPING TBG. FILL OUT & REVIEW JSA
	7:00	8:00	1.00	WOR	39		Р		TOOH W/ 98 JTS 2-7/8"EUE TBG, SEAT NIPPLE, X-OVER, 7 JTS 2-3/8"EUE TBG & STINGER.
	8:00	13:00	5.00	WOR	16		Р		RD WORK FLOOR. PRESSURE TEST CSG TO 6000 PSI FOR 15 MINUTES. ND BOP. NU & TEST FRAC STACK.
	13:00	15:30	2.50	STG01	21		Р		RU WIRELINE UNIT. RIH & PERF STG 1 PERFORATIONS FROM 8588' TO 8668' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASING, WHILE HOLDING 1000 PSI ON CSG. PRESSURE DID NOT CHANGE WHILE PERFORATING. SDFN
4/9/2016	6:00	6:00	24.00	STG01	18		Р		NO ACTIVETY TODAY. WAITING ON FRAC EQUIPMENT
4/10/2016	6:00	6:00	24.00	STG01	18		Р		HEAT FRAC WTR & RU FRAC EQUIPMENT
4/11/2016 4/12/2016	6:00 6:00	6:00 8:00	24.00	STG01 STG01	18 28		P P		FINISH RIGGING UP FRAC EQUIPMENT. MIX ACID TRAVEL TO LOCATION. HOLD SAFETY MEETING ON FRAC
	8:00	10:00	2.00	STG01	35		P		SAFETY. FILL OUT & REVIEW JSA'S  PRESSURE TEST LINES TO 9630 PSI. BREAK DOWN STG 1 PERFORATIONS @ 4215 PSI PUMPING 6.1 BPM. PUMP 107BBLS THEN PERFORM STEP DOWN TEST. ISIP 2832 PSI. FG. 762. 5 MIN 2610 PSI. 10 MIN 2512 PSI. 15 MIN 2471 PSI. TREAT STAGE 2 PERFORATIONS W/ 11382 GALLONS 15% HCL ACID USING 55 BAL SEALERS DROPPING 11 BALLS EVERY 2000 GALLONS BEGINNING AT 2000 GALLONS, FLUSHING TO BOTTOM PERF + 10 BBLS. SAW FAIR DIVERSION. MAX PSI 7815 PSI. MAX RATE 53.25 BPM. AVG PSI 5475 PSI. AVG RATE 43.9 BPM 2900 PSI. FINAL FG .769. 5 MIN 2671 PSI. 10 MIN 2615. TURN WELL OVER TO WIRELINE. 717 BBLS FLUID TO RECOVER RIH & SET CBP @ 8535'.PERFORATE STG 2
	10.00	11.30	1.50	31302	21		r		PERFORATIONS FROM 8464' TO 8484' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASINGPRESSURE DROPPED FROM 2400 PSI TO 2000 PSI WHILE PERFORATING.

Date		ime	Duration	Phase	Activit	Sub	ОР	MD from	Operation
	11:30	12:15	(hr) 0.75	STG02	35		P	(ft)	PRESSURE TEST LINES TO 9584 PSI. BREAK DOWN STG 2 PERFORATIONS @ 2838 PSI PUMPING 5.8 BPM. PERFORM STEP DOWN TEST. ISIP 2543 PSI. FG. 734. 5 MIN 2428 PSI. 10 MIN 2412 PSI. 15 MIN 2402 PSI. TREAT STAGE 2 PERFORATIONS W/ 5208 GALLONS 15% HCL ACID USING 55 BAL SEALERS DROPPING 11 BALLS EVERY 1250 GALLONS BEGINNING AT 1250 GALLONS, FLUSHING TO BOTTOM PERF + 10 BBLS. SAW FAIR DIVERSION. MAX PSI 7766 PSI. MAX RATE 54.44 BPM. AVG PSI 3922 PSI. AVG RATE 4680 BPM. ISIP 2611 PSI. FINAL FG. 68. 5 MIN 2450 PSI. 10 MIN 2384. TURN WELL OVER TO WIRELINE. 526 BBLS FLUID TO RECOVER
	12:15	14:00	1.75	STG03	21		Р		RIH & SET CBP @ 8128'.PERFORATE STG 3 PERFORATIONS FROM 8022' TO 8110' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASING.
	14:00	15:00	1.00	STG03	39		Р		PRESSURE TEST LINES TO 9536 PSI. BREAK DOWN STG 3 PERFORATIONS @ 1351 PSI PUMPING 5 BPM. PERFORM STEP DOWN TEST. ISIP 1533 PSI. FG. 62. 5 MIN 1020 PSI. 10 MIN 912 PSI. 15 MIN 830 PSI. TREAT STAGE 3 PERFORATIONS W/ 11382 GALLONS 15% HCL ACID USING 70 BIO BALL SEALERS DROPPING 14 BALLS EVERY 2000 GALLONS BEGINNING AT 2000 GALLONS, FLUSHING TO BOTTOM PERF + 10 BBLS. MAX PSI 5501 PSI. MAX RATE 55.83 BPM. AVG PSI 3047 PSI. AVG RATE 51.09 BPM. ISIP 1748 PSI. FINAL FG. 65. 5 MIN 1345 PSI. 10 MIN 1161. TURN WELL OVER TO WIRELINE. 674 BBLS FLUID TO RECOVER
	15:00	17:30	2.50	STG04	21		Р		RIH & SET CBP @ 7867'.PERFORATE STG 4 PERFORATIONS FROM 7647' TO 7852' USING PERFECTA DEEP PENETRATING 22 GRAM CHARGES, 3 JSPF & 120 DEGREE PHASING. PERF GUN MISFIRED AFTER SHOOTING 7797' TO 7798'. POOH W/ PERF GUN. WIRE HAD BROKEN OFF DETONATOR. REPAIR PERF GUN. RIH & FINISH SHOOTING STAGE 4
	17:30	19:00	1.50	STG04	39		P		PRESSURE TEST LINES TO 9680 PSI. SICP 265 PSI. BREAK DOWN STAGE 4 PERFS @ 1608 PSI, 5.8 BPM. TREATED PERFS W. 9240 GALS 15% HCL ACIDFLUSHING TO BOTTOM PERF + 10 BBLS. I.S.I.P 1683 PSI F.G65. 5 MINUTE 1561 PSI, 10 MINUTE 1472 PSI, 15 MINUTE1394 PSI. PUMPED 6740 LBS 100 MESH SAND IN 1/2 PPG STAGE AND 116240 LBS 30 / 50 WHITE SAND IN 1/2 PPG, 1PPG, 1.5 PPG, 2PPG & 3PPG STAGES. AVG RATE 74.5 BPM, MAX RATE 75.48 BPM. AVG PRESS 2460_ PSI, MAX PRESS 2938 PSI. I.S.I.P. 1931 PSI F.G681. 5 MIN 1676 PSI. 10 MIN 1598 PSI. SHUT WELL IN. 3539 BBLS TO RECOVER TURNED WELL OVER TO WIRELINE.
	19:00	22:00	3.00	RDMO	18		Р		RD WIRELINE & PUMP LINES FROM GOAT HEAD.
	22:00	6:00	8.00	FB	19		Р		OPEN WELL TO FLOW BACK TANK ON A 12/64" CHOKE @ 1000 PSI. REWCOVERED 235 BBLS OIL. CSG PRESSURE @ REPORT TIME 550 PSI
4/13/2016	6:00	7:00	1.00	FB	28		Р		HOLD SAFETY MEETING ON NIPPLING DOWN FRAC STACK. FILL OUT & REVIEW JSA
	7:00	11:00	4.00	FB	18		Р		ND FRAC STACK TO BOTTOM HCR VALVE. NIPPLE UP FLOW LINE TO TREATER SIDE CSG VALVE. RUN PUMP LINES. RIG DOWN FRAC EQUIPMENT. WHILE FLOWING WELL
	11:00	6:00	19.00	FB	19		Р		CONTINUE FLOWING WELL
4/14/2016	6:00	6:30	0.50	FB	28		Р		HOLD SAFETY MEETING ON FLOW BACK OPERATIONS.FILL OUT & REVIEW JSA
	6:30	6:00	23.50	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY. RECOVERED 163 BBLS OIL, 518 BBLS WTR, GAS FLAIRING, FLOWING @ 80 PSI ON A 48/64" CHOKE
4/15/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON KILLING WELL. FILL OUT & REVIEW JSA

Date		Γime irt-End	Duration (hr)	Phase	Activit y Code	Sub	OP Code	MD from (ft)	Operation
	7:00	8:00	1.00	WOR	18		Р		OPEN WELL TO FLOW BACK TANK. BLEED PRESSURE FROM 100 PSI TO 20 PSI
	8:00	9:30	1.50	WOR	15		Р		KILL WELL W/ 1000 BBLS 10 PPG BRINE WTR.
	9:30	12:00	2.50	WOR	16		Р		ND HCR VALVE. NU & TEST BOP.
	12:00	13:00	1.00	WOR	15		Р		KILL WELL W/ 75 BBLS 10 PPG BRINE WTR
	13:00	16:00	3.00	WOR	39		Р		TIH W/ 6" BIT, BIT SUB & 240 JTS 2-7/8"EUE TBG, KILLING TBG AS NEEDED WHILE FLOWING CSG TO FLOWBACK TANK
	16:00	18:30	2.50	WOR	18		Р		RU POWER SWIVEL. BREAK REVERSE CIRCULATION. CLEAN OUT 15' SAND & DRILL 7" CBP SET @ 7867'. CIRCULATE TBG CLEAN. KILL TBG W/ 20 BBLS 10 PPG BRINE WTR. RD POWER SWIVEL. TOOH W/ 14 JTS 2-7/8" EUE TBG. SDFN W/ EOT @ 7573'.
4/16/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON CIRCULATING WELL. FILL OUT & REVIEW JSA
	7:00	8:30	1.50	WOR	06		Р		SITP 100 PSI. SICP 200 PSI. REVERSE CIRCULATE OIL & GAS FROM WELL BORE. KILL TBG W/ 20 BBLS 10 PPG BRINE WTR DOWN TBG.
	8:30	9:30	1.00	WOR	39		Р		TIH & TAG UP @ 8060'. RU POWER SWIVEL & BREAK REVERSE CIRCULATION.
	9:30	16:00	6.50	WOR	10		Р		DRILL CBP REMAINS & CLEAN OUT SAND TO CBP SET @ 8128'. DRILL CBP. CIRCULATE CLEAN. TIH TO LINER TOP @ 8505'. FINISH DRILLING CBP ON LINER TOP. CIRCULATE CLEAN. KILL TBG W/ 30 BBLS 2% KCL WTR
	16:00	16:30	0.50	WOR	39		Р		TOOH W/ 30 JTS 2-7/8"EUETBG. SDFN
4/17/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON KILLING WELL. FILL OUT & REVIEW JSA
	7:00	9:30	2.50	WOR	15		Р		SITP 300 PSI. SICP 125 PSI. REVERSE CIRCULATE WELL W/ 275 BBLS 10 PPG BRINE WTR.
	9:30	17:30	8.00	WOR	39		Р		TOOH W/ TBG & 6" BIT. TIH W/ 4-1/8" OD BIT, BIT SUB, 7 JTS 2-3/8"EUE TBG, X-OVER & 255 JTS 2-7/8"EUE TBG. RU POWER SWIVEL & BREAK REVERSE CIRCULATION. CLEAN 3' OF SAND OFF CBP SET @ 8535'. DRILL CBP SET @ 8535'. CIRCULATE CLEAN. KILL TBG. CHASE CBP REMAINS TO CMT RETAINER SET & 8673'. TOOH W/ 36 JTS 2-7/8"EUE TBG.
	17:30	18:00	0.50	WOR	18		Р		RU FLOW LINE TO TBG.
	18:00	6:00	12.00	WOR	19		Р		FLOW WELL TO FLOW BACK TANK ON A 26/64" CHOKE. RECOVERED 420 BBLS FLUID W/ 575 PSI ON CSG & TBG FLOWING 40 BBLS PER HOUR @ 200 PSI
4/18/2016	6:00	6:30	0.50	FB	28		Р		HOLD SAFETY MEETING ON FLOW BACK OPERATIONS. FILL OUT & REVIEW JSA
	6:30	6:00	23.50	FB	19		Р		FLOW WELL. RECOVERED 789 BBLS OIL (298 BBLS TRANSFERED FROM FLOW BACK TANKS) & 837 BBLS WTR W/ GAS FLARING. PRESSURE @ REPORT TIME CSG PSI 1075 PSI. TBG PSI 450 PSI FLOWING ON A 26/64" CHOKE
4/19/2016	6:00	6:30	0.50	FB	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON FLOW BACK OPERATIONS. FILL OUT & REVIEW JSA
	6:30	6:00	23.50	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY. RECOVERED 861 BBLS OIL (140 BBLS FROM SWD TANK, 480 BBLS WTR W/ GAS FLAIRING.CSG PRESSURE @ REPORT TIME 1175 PSI. TBG PRESSURE 350 PSI ON A 28/64" CHOKE
4/20/2016	6:00	7:00	1.00	WOR	28	TRAV EL TO LOCA T <b>I</b> ON.	Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON KILLING WELL. FILL OUT & REVIEW JSA
	7:00	10:00	3.00	WOR	15		Р		SICP 1175 PSI. FLOWING TBG PRESSURE 300 PSI. OPEN CSG TO FLOW BACK TANK & BLEED PRESSURE TO 300 PSI. REVERSE CIRCULATE WELL W/ 275 BBLS 10 PPG BRINE WTR. PUMP 50 BBLS 10 PPG BRINE WTR DOWN TBG. WELL WAS DEAD

**CENTRAL DIVISION** 

#### 2.1 **Operation Summary (Continued)**

Date		Γime rt-End	Duration (hr)	Phase	Activit y Code	Sub	OP Code	MD from	Operation
	10:00	12:30	2.50	WOR	39		P	(ft)	TIH & TAG CMT RETAINER @ 8673'. LD 29 JTS 2-7/8"EUE TBG. TOOH W/ 232 JTS 2-7/8"EUE TBG, X-OVER, 7 JTS 2-3/8"EUE TBG, BIT SUB & BIT
	12:30	16:00	3.50	WOR	18		Р		RU WIRELINE UNIT. RIH W/ 6" OD GUAGE RING TO 7650'. RIH W/ KLX 7" PKR & SET @ 7610' ( CSG COLLAR @ 7600'). RD WIRE LINE UNIT
	16:00	18:30	2.50	WOR	39		Р		TIH W/ ON/OFF TOOL, 1 JT 2-7/8"EUE TBG, 2-7/8" SEAT NIPPLE (2.28" ID) & 230 JTS 2-7/8"EUE TBG. ENGUAGE PKR. PU 25 K OVER STRING WEIGHT. RELEASE ON/OFF TOOL & LD 3 JTS 2-7/8"EUE TBG. SDFN
4/21/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON BLEEDING PRESSURE OFF WELL. FILL OUT & REVIEW JSA
	7:00	9:00	2.00	WOR	18		Р		SICP 300 PSI. SITP 400 PSI. BLEED PESSURE OFF TBG & CSG. PUMP 20 BBLS 10 PPG BRINE WTR DOWN TBG.
	9:00	12:00	3.00	WOR	39		Р		TIH W/ 2-1/2" OD ROD FISHING TOOL, 89 3/4" RODS, 109 7/8" RODS & 88 1" RODS.
	12:00	13:00	1.00	WOR	06		Р		FLUSH RODS W/ 50 BLS 2% KCL WTR. KILL TBG W/ 50 BBLS BRINE WTR.
	13:00	16:00	3.00	WOR	24		Р		LD RODS & OVERSHOT
	16:00	17:30	1.50	WOR	16		Р		REVERSE CIRCULATE BRINE WTR FROM WELL BORE W/ 290 BBLS PKR FLUID. PUMP 0 BBLS 2% KCL WTR DOWN TBG
	17:30	20:00	2.50	WOR	16		P		RIH & LATCH PKR. LAND TBG ON BREECH LOCK TBG HANGER IN 15K TENSION W/ BACK PRESSURE INSTALLED IN TBG HANGER. ND BOP & FRAC VALVE. NU & TEST WELLHEAD & FLOWLINES. PUMP OUT PLUG @ 3500 PSI. OPEN WELL TO PRODUCTION FACILITY ON A 28/64" CHOKE.
	20:00	6:00	10.00	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY
4/22/2016	6:00	7:00	1.00	WOR	28		Р		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON RIGGING DOWN RIG. FILL OUT & REVIEW JSA
	7:00	9:00	2.00	RDMO	02		Р		RD RIG & PUMP LINES. MOVE OFF LOCATION
	9:00	6:00	21.00	FB	19		Р		FLOW WELL TO PRODUCTION FACILITY
4/29/2016	14:00	20:00	6.00	WLWORK	22		Р		MIRU WIRELINE UNIT. RIH W/ 1-11/16" SINKER BARS & TAG @ 8666'. POOH. RIH W/ PROTECHNICS PRODUCTION LOGGING TOOL. LOG INTERVAL 7500' TO 8666'. DOWN LOAD DATA. RD WIRELINE UNIT. MOVE OFF LOCATION
6/13/2016	7:00	8:00	1.00	WOR	28		Р		HELD SAFETY MEETING W/ CREW MIRU NOT STANDING BEHIND RIG AS SPOT IN
	8:00	14:00	6.00	WOR	16		P		MIRU PEAK #1700 CHECK PSI ON TBG 200 PSI, R/U HOT OILER PUMP 60 BBLS 2% KCL, SET BPV IN TBG HANGER, ND FLOWING PRODUCTION TREE, N/U 7 - 1/16" 10M X 7 - 1/16" 5M X/O FLANGE, 7 - 1/16" 5M DOUBLE BOP, ANNULAR, TEST BLIND RAMS 250 PSI LOW, 4000 PSI HIGH (BLINDS DID NOT TEST REPLACE RAMS) TEST 2 7/8" PIPE RAMS HELD GOOD! HAD R/U WEATHERFORD LUBICATIOR BLEED OFF RET 2 WAY, 200 PSI ON TBG, PUMP 25 BBLS DOWN TBG KILL WELL
	14:00	17:30	3.50	PRDHEQ	39		Р		P/U 2 7/8" PUP JT, P/U 5/8" INCH WORK DOWN THREW BRETCH HANGER RELEASE 7" WL SET AS1 L/D BRETCH HANGER, I JT 2 7/8" N-80, 2' 4' 6' 8' X 2 7/8" SUBS, START TOOH W/ 141 JT 2 7/8" LEAVE KILL STRING IN THE HOLE EOT@ 3010, 96 JT 2 7/8" LEFT IN THE HOLE ( BEEN FLUSHING AS NEED TOOH!)
	17:30	18:00	0.50	PRDHEQ	39		Р		INSTALL TIW VAVLE 1ST BARRIER, 2ND NIGHT CAP W/ NEEDLE VAVLE, CLOSED & LOCK PIPE RAMS, SEND CSG UP FLOW LINE 2" BULL PLUGS IN ALL POSSIBLE SPOTS

6/14/2016

**CENTRAL DIVISION** 

Date		Γime ırt-End	Duration (hr)	Phase	Activit y Code	Sub	OP Code	MD from (ft)	Operation
	6:00	7:30	1.50	INARTLT	28		Р		HELD SAFETY MEETING W/ CREW JSA ON HYDRO TESTING TBG W/ 8500 PSI
	7:30	8:30	1.00	PRDHEQ	39		Р		TSIP 50 PSI, CSIP 50 PSI, BLEED PRESSURE OFF AWAY FROM HOT OILER, MAKE SURE FLAMES OUT, R/U HOT OILER TBG PUMP 20 BBLS HOT FLUSH, DOWN TBG, UNLOCK PIPE RAMS & OPEN CONT TOOH W/ 91 JT 2 7/8" N-80, 7" ON/OFF SKIRT, 7" AS1-X PACKER, 4' X 2 7/8" PUP, 2 7/8" PUMP OUT PLUG
	8:30	13:30	5.00	INARTLT	39		Р		M/U 5 3/4" SOLID NO/GO, 2 JT 2 7/8" MUD JT, 5 1/2" PBGA, 4'X 2 7/8" PUP, 2' X 2 7/8" PUP, MECH PSN, TUBING PUMP BARRELL, 4' X 2 7/8" PUP, 4 JT 2 7/8" N-80, 7" KLX 8RD TAC, TIH W/ 224 JT 2 7/8" N-80 ( HYDRO TEST ALL THE STRING!) HAD NO LEAKS R/D TRUCK
	13:30	15:00	1.50	WHDTRE	16		P		SET 7" TAC USING LANDING DONUT LAND HANGER IN WELLHEAD, INSTALL TIW VAVLE, START N/D HYDRILL, BOP P/U TBG HANGER OUT WELLHEAD, L/D DONUT, M/U "B" FLANGE, INSTALL 60' X 1/4" CAP STRING IN FLANGE, NEW SET RADIGINS, FLOW "T", 2ND RADIGIN, INSTALL TIW VAVLE FLUSH TBG W/ 70 BBLS & PUMP CHEMICAL, CHANGE RIG EQUIPMENT OVER RUN RODS (DROP STAND VAVLE NO PSI) EOT@ 7,598' MECH PSN @ 7,495' 7" TAC@ 7,320'
	15:00	18:00	3.00	PRDHEQ	39		Р		P/U 2 1/4" X 40' HF PUMP PLUNGER, 14 1 1/2" SINKER "C" BARS, 88 - 3/4" EL RODS W/ 4 GPR, P/U 1 7/8" EL 6 GPR, STRIP ROD TABLE, P/U 1 1/2" POLISH ROD CLOSE WELL IN, CLOSE 1" W BULL PLUG, SEND 2" UP FLOW LINE, SEND CSG UP SALES SDFN
6/15/2016	6:00	7:30	1.50	INARTLT	28		Р		HELD SAFETY JSA MEETING W/ CREW TAILING IN RODS
	7:30	10:30	3.00	PRDHEQ	39		Р		TSIP 0, L/D 1 1/2" X 40' POLISH CONT P/U 58 - 7/8" RODS EL 6 GPR, 50 - 7/8" EL RODS W/4 GPR, 40 - 1" RODS W/ 4 GPR, 43 - 1" EL RODS W/ 6 GPR ( ALL USED RODS THAT WERE LAID ON THE GROUND!) 2 6' 1 4' 2 2' X 1" X PONYS SPACE OUT P/U 1 1/2" X 40' FILL TBG W/ 14 BBLS, PRESSURE UP 300 PSI STROKE TEST 1000 PSI ( TWO STROKE W/ RIG!) CLEAN ROTA -FLEX UNIT OFF
	10:30	12:00	1.50	RDMO	02		Р		RDMO " HELP " SLIDE ROTA - FLEX UNIT FORWARD TURN OVER PRODUCTION

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: Fee
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Matern Trust 4-21C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY,	L.P.		<b>9. API NUMBER:</b> 43013528410000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston,		DNE NUMBER: Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1707 FSL 1907 FWL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	IIP, RANGE, MERIDIAN: 21 Township: 03.0S Range: 04.0W Meridian	: U	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
7/9/2016		PLUG AND ABANDON	PLUG BACK
SPUD REPORT		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
,		OTHER	
			OTHER: Replace Rods
	completed operations. Clearly show all peed parted rods. See attached fo		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 07, 2016
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Maria S. Gomez	713 997-5138	Consultant	
SIGNATURE N/A		<b>DATE</b> 10/6/2016	

## **CENTRAL DIVISION**

ALTAMONT FIELD

MATERN TRUST 4-21C4

MATERN TRUST 4-21C4

LOE LAND

# **Operation Summary Report**

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner (s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

**CENTRAL DIVISION** 

#### 1 General

#### 1.1 **Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

#### 1.2 **Well Information**

Well	MATERN TRUST 4-21C4			
Project	ALTAMONT FIELD	Site	MATERN TRUST 4-21C4	
Rig Name/No.		Event	LOE LAND	
Start date	7/8/2016	End date	7/9/2016	
Spud Date/Time	4/24/2014	UWI	MATERN TRUST 4-21C4	
Active datum	KB @5,879.3ft (above Mean Sea Level)	•	<u> </u>	
Afe	166964/57175 / MATERN TRUST 4-21C4	4		
No./Description				

#### Summary 2

#### 2.1 **Operation Summary**

Date	1	Гime	Duration	Phase	Activit	Sub	ОР	MD from	Operation
	Sta	rt-End	(hr)		y Code		Code	(ft)	
7/9/2016	14:30	16:00	1.50	PRDHEQ	18		P		ROAD RIG FROM THE 3-26B5 TO 4-21C4, MIRU WHILE
									PUMPING 6 BBLS HOT 2% DOWN CSG, BLED OFF TBG
	16:00	17:00	1.00	PRDHEQ	42		Р		L/D POL ROD & SUBS, POOH W/ BODY PART RIGHT AT THE
									3rd GUIDE ON THE 77th 1" @ 1925', M/U FISHING TOOL
	17:00	19:00	2.00	PRDHEQ	42		Р		RIH W/ 2 1/2" O.S W/ 1" GRAPPLE & 79-1" RODS, WORK
									TOOL OVER FISH, POOH W/ 76-1" & L/D FISH, SECURE
									WELL, SDFD.
7/10/2016	6:00	7:00	1.00	PRDHEQ	46		Р		CREW TRAVEL HSM WRITE & REVIEW JSA ( TOPIC )
									CONFINED SPACES
	7:00	8:30	1.50	PRDHEQ	42		Р		L/D 5-1" BELOW PART & 5-1" ABOVE PART, L/D 3-1" FOR
									BROKEN GUIDES, P/U 14 NEW 1" RODS W/ 7GPR, RIH W/
									66-1", SPACE OUT, P/U POL ROD SEAT PLUNGER IN
									BARREL
	8:30	9:00	0.50	PMPNG	34		Р		FILL TBG W/ 6 BBLS 2% KCL, P.T. TBG TO 500 PSI, STROKE
	0.00	0.00	0.00	1 1011 140			'		TEST TBG PUMP TO 1000 PSI, GOOD PUMP ACTION,
									FLUSH FLOW LINE W/ 15 HOT BBLS
	0.00	40.20	4.50	DDDUEO	10				
	9:00	10:30	1.50	PRDHEQ	18		P		R/D RIG, SLIDE IN UNIT HANG OFF RODS, TWOTO, CLEAN
									LOCATION, SDFW.

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: Fee
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.	7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Matern Trust 4-21C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY,	L.P.		9. API NUMBER: 43013528410000
3. ADDRESS OF OPERATOR: 1001 Louisiana, Houston,	TX, 77002 713 997-5	PHONE NUMBER: 138 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1707 FSL 1907 FWL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 21 Township: 03.0S Range: 04.0W Meri	dian: U	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE WELL NAME	
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
10/13/2016	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT  Date of Spud:			
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
Report Date:	WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: DO Plugs
DO retainer @ 8673	COMPLETED OPERATIONS. Clearly show a strong of the control of the	s: 7647'-8690' (04/2016	
NAME (PLEASE PRINT) Maria S. Gomez	<b>PHONE NUMB</b> 713 997-5138	ER TITLE Consultant	
SIGNATURE N/A		<b>DATE</b> 11/9/2016	
		_ · · · · · · · · · · ·	

## **CENTRAL DIVISION**

ALTAMONT FIELD

MATERN TRUST 4-21C4

MATERN TRUST 4-21C4

RECOMPLETE LAND

# **Operation Summary Report**

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**CENTRAL DIVISION** 

Date		ime	Duration	Phase	Activit	Sub	OP Code	MD from	Operation
	6:00	7:30	(hr) 1.50	INARTLT	y Code 28		Code P	(usft)	HELD SAFETY MEETING W/ CREW JSA ON HYDRO
	0.00	7.00	1.00	II WATER	20				TESTING TBG W: 8500 PSI
	7:30	8:30	1.00	PRDHEQ	39		Р		TSIP 50 PSI, CSIP 50 PSI, BLEED PRESSURE OFF AWAY FROM HOT OILER, MAKE SURE FLAMES OUT, R/U HOT OILER TBG PUMP 20 BBLS HOT FLUSH, DOWN TBG, UNLOCK PIPE RAMS & OPEN CONT TOOH W/ 91 JT 2 7/8" N-80, 7" ON/OFF
							_		SKIRT, 7" AS1-X PACKER, 4' X 2 7/8" PUP, 2 7/8" PUMP OUT PLUG
	8:30	13:30	5.00	INARTLT	39		Р		M/U 5 3/4" SOLID NO/GO, 2 JT 2 7/8" MUD JT, 5 1/2" PBGA, 4'X 2 7/8" PUP, 2' X 2 7/8" PUP, MECH PSN, TUBING PUMP BARRELL, 4' X 2 7/8" PUP, 4 JT 2 7/8" N-80, 7" KLX 8RD TAC, TIH W/ 224 JT 2 7/8" N-80 ( HYDRO TEST ALL THE STRING!) HAD NO LEAKS R/D TRUCK
	13:30	15:00	1.50	WHDTRE	16		P		SET 7" TAC USING LANDING DONUT LAND HANGER IN WELLHEAD, INSTALL TIW VAVLE, START N/D HYDRILL, BOP P/U TBG HANGER OUT WELLHEAD, L/D DONUT, M/U "B" FLANGE, INSTALL 60' X 1/4" CAP STRING IN FLANGE, NEW SET RADIGINS, FLOW "T", 2ND RADIGIN, INSTALL TIW VAVLE FLUSH TBG W/ 70 BBLS & PUMP CHEMICAL, CHANGE RIG EQUIPMENT OVER RUN RODS (DROP STAND VAVLE NO PSI) EOT@ 7,598' MECH PSN @ 7,495' 7" TAC@ 7,320'
	15:00	18:00	3.00	PRDHEQ	39		Р		P/U 2 1/4" X 40' HF PUMP PLUNGER, 14 1 1/2" SINKER "C" BARS, 88 - 3/4" EL RODS W/ 4 GPR, P/U 1 7/8" EL 6 GPR, STRIP ROD TABLE, P/U 1 1/2" POLISH ROD CLOSE WELL IN, CLOSE 1" W BULL PLUG, SEND 2" UP FLOW LINE, SEND CSG UP SALES SDFN
6/15/2016	6:00	7:30	1.50	INARTLT	28		Р		HELD SAFETY JSA MEETING W/ CREW TAILING IN RODS
	7:30	10:30	3.00	PRDHEQ	39		Р		TSIP 0, L/D 1 1/2" X 40' POLISH CONT P/U 58 - 7/8" RODS EL 6 GPR, 50 - 7/8" EL RODS W/4 GPR, 40 - 1" RODS W/ 4 GPR, 43 - 1" EL RODS W/ 6 GPR ( ALL USED RODS THAT WERE LAID ON THE GROUND!) 2 6' 1 4' 2 2' X 1" X PONYS SPACE OUT P/U 1 1/2" X 40' FILL TBG W/ 14 BBLS, PRESSURE UP 300 PSI STROKE TEST 1000 PSI ( TWO STROKE W/ RIG!) CLEAN ROTA -FLEX UNIT OFF
	10:30	12:00	1.50	RDMO	02		Р		RDMO " HELP " SLIDE ROTA - FLEX UNIT FORWARD TURN OVER PRODUCTION
10/8/2016	6:00	7:00	1.00	MIRU	01		Р		TRAVEL TO LOC HSM REVIEW JSA= MOVE AND RU HOT OIL AND PULL RODS
	7:00	10:00	3.00	MIRU	01		Р		MOVE RIG AND EQUIP FROM BRO 3-11B4 SPOT IN RIG TEST DEAD MEN PUMP 60 BBLS DOWN CSG RU RIG
	10:00	14:00	4.00	INARTLT	03		Р		LD POLISH ROD PU 2 RODS RIH TRY TO FISH S/V COULDNT FISH AFTER SEVERAL ATTEMPTS AND PRESS UP TO 1500 PSI POOH W/ PLUNGER ( TOOL FOR S/V BROKEN)
	14:00	15:00	1.00	WLWORK	21		Р		RIH W/ TUBING PUNCH PERF TUBING @ 7460' 5' ABOVE 4' PUP JNT POOH RD W/L FLUSH TUBING W/ 60 BBL KCL
	15:00	15:30	0.50	PRDHEQ	18		Р		ND W/H B FLANGE GAULDED WHEN REMOVING
	15:30	17:30	2.00	WOR	16		X		WAIT ON SPEAR

**CENTRAL DIVISION** 

Date	1	Time	Duration	Phase	Activit	Sub	OP	MD from	Operation
		rt-End	(hr)		y Code		Code	(usft)	1
	17:30	18:30	1.00	WOR	18		Х		COULDNT GET B FLANGE OF TUB CUT TUBING WITH PIPE CUTTER PUSH IN SPEAR DROP DOWN TO 9000 OVER STRING WT TRY TO RELEASE ANCHOR DIDNT RELEASE DROP DOWN TO 5000 OVER TRY TO RELEASE ANCHOR SPEAR RELEASED TUBING DROPED CALL FOR TUBING AND OVERSHOT
	18:30	20:00	1.50	WOR	18		N		PU 1 JNT TUBING SPEAR TUB PULL OUT TO FISHING TOOL AND CUT JNT ( ANCHOR WAS FREE) LD TOOLS CLOSE TIW VALVE W/ NIGHT CAP CLOSE CSG VALVES W/ BULL PLUG CLOSE AND LOCK PIPE RAMS AND HYDRILL SDFN
10/9/2016	6:00	7:00	1.00	PRDHEQ	18		Р		TRAVEL TO LOC HSM, REVIEW JSA= TEST SCAN PULL TUB
	7:00	16:00	9.00	PRDHEQ	18		Р		SIWP= TUB 40 PSI, CSG 110 PSI OPEN WELL TO FBT PU LAND TUB ON HNGR TEST FLANGE AND BOPS TO 4000 PSI 15 MIN W/ H/O MIRU TUBOSCOPE POOH SCAN TUB 226 YB, 1 RB PERF JNT PU4-1/8 BIT TALLEY AND PU 91 JNTS 2-3/8" X-OVER TALLEY AND RIH 2-7/8" TO 100' ABOVE LT EOT @ 8400' RU AND HANG POWER SWVL RU PUMP CLOSE TIW VALVE, CLOSE AND LOCK PIPE RAMS, CLOSE CSG VALVE W/ BULL PLUG SDFW
10/11/2016	7:00	8:00	1.00	WOR	18		Р		TRAVEL TO LOC HSM REVIEW JSA=DRILLING, PUMP, HOT OIL
	8:00	10:30	2.50	WOR	18		Р		RIH TAG @ 8674' CCR @ 8673' RU PWR SWVL EST REV CIRC W/ 675 BBL, PUMPING 7.5 BPM W/ 1-1/2 BPM RETURNS
	10:30	16:30	6.00	WOR	18		Р		C/O AND DRILL 10' FILL TO CCR TO RUBBER FOUGHT BIT PLUGGING AND LOST CIRC GOT THRU CCR AND 20' CEM FELL FREE USED 28 LOADS OF KCL = 3600 BBLS CONTINUE TO RIH 3 JNTS TAG @ 8760'
	16:30	20:00	3.50	WOR	18		Р		EST REV CIRC C/O 15' FILL TO CBP DRILL THRU PLUG IN 2 HRS W/ NO CHANGE IN PSI OR RETURNS CIRC CLEAN POOH TO ABOVE LINER TOP CLOSE AND LOCK PIPE RAMS CLOSE CSG VALVE W/ BULL PLUG CLOSE TIW W/ NIGHT CAP SDFN
10/12/2016	6:00	7:00	1.00	WOR	18		Р		TRAVEL TO LOC HSM, REVIEW JSA WELL CONTROL, HOT OILER, LD TUB
	7:00	8:30	1.50	WOR	18		Р		SIWP= 0 PSI, OPEN WELL RIH TAG AT 11302' PBTD @ 11312'
	8:30	12:00	3.50	WOR	18		Р		POOH FLUSH TUB W/ HOT WTR TO REMOVE OIL TO HYDRO TEST, LD X-OVER 2-3/8 BIT AND BIT SUB
	12:00	19:00	7.00	WOR	18		P		MIRU HYDRO TESTER PU BHA RIH TESTING TUB TO 8500 PSI TAG @ 7983' W/ 5-3/4 NOGO WORK TUB TRYING TO RELEASE ANCHOR WORK TU UP AND DOWN GOT STUCK WORKED FREE SOOH W/ BHA
10/13/2016	6:00	7:00	1.00	WOR	18		Р		TRAVEL TO LOC HSM REVIEW JSA=RUN TRIP TUBING PU TOOLS HOT OIL
	7:00	8:30	1.50	WOR	18		Р		SIWP= 50 PSI TUB 70 PSI CSG, OPEN WELL CONTINUE TO POOH W/ PROD TUB LD BHA
	8:30	10:00	1.50	WOR	18		Р		PU 7" CSG SCRAPER AND 6" BIT RIH TAG AT 7983'WORK TUB DOWN 1 JNT
	10:00	13:00	3.00	WOR	18		Р		RU PWR SWVL PUMP 2 BPM DWN CSG, PUMP 1 BPM DOWN TUB, SWVL 2 JNS DWN WORKING SLOWLYFELL FREE SWVL 1 MORE JNT OBSTRUCTION FROM 7983' TO 8120' (140') CONTINUE TO RIH TAG LT AT 8505' RD PWR SWVL
	13:00	15:00	2.00	WOR	18		Р		POOH W/ BIT AND SCRAPER

**CENTRAL DIVISION** 

Date	Time Start-End				Activit y Code	Sub	OP Code	MD from (usft)	Operation
	15:00	19:00	4.00	WOR	18		Р		PU BHA RIH PU PERF SUB AND HNGR SET TUBING ANCHOR @ 8232.23, SN @ 8368.55', EOT @ 8469.38', LAND TUBING ON HNGR RD FLOOR AND TUBING EQUIP ND HYDRILL AND BOPS B/O HNGR NU B- FLANGE LAND TUBING W/ 25000# TENSION ON TAC NU W/H RUN CAP STRING CHANGE HANDLING EQUIP FROM TUBING TO RODS CLOSE TIW W/ NIGHT CAP CLOSE CSG W/ BULL PLUG SDFN
10/14/2016	6:00	7:00	1.00	WOR	18		Р		TRAVEL TO LOC HSM, REVIEW JSA= RUN RODS ,HOT OIL, PRESS TEST , SLIDE UNIT
	7:00	11:30	4.50	WOR	18		Р		SIWP= 40 PSI CSG 50 PSI TUB OPEN WELL NU PUMP 60 BBL HOT WTR DOWN TUB PU PUMP RIH WITH RODS AS PER ROD STAR, SPACE OUT AND PU POLISH ROD SEAT PUMP AND PRESSURE TEST TO 1000 PSI RD RIG
	11:30	13:00	1.50	WOR	18		Р		SLIDE UNIT HANG OFF STROKE PUMP TEST KICK OUT TURN WELL OVER TO PROD